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S. HRG. 101-100

OILSPILL IN PRINCE WILLIAM SOUND, ALASKA

HEARING

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION

OF THE

COMMITTEE ON

ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

FIRST SESSION

ON THE

ADEQUACY AND EFFECTIVENESS OF THE OILSPILL CLEANUP IN PRINCE WILLIAM SOUND, ALASKA

APRIL 19, 1989

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OIL SPILL IN PRINCE WILLIAM SOUND, ALASKA

WEDNESDAY, APRIL 19, 1989

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:05 a.m., in room SH-216, Hart Senate Office Building, Hon. Max Baucus (chairman of the subcommittee) presiding.

Present: Senators Baucus, Moynihan, Mitchell, Lautenberg, Reid, Lieberman, Chafee, Jeffords, and Durenberger.

OPENING STATEMENT OF HON. MAX BAUCUS, U.S. SENATOR FROM THE STATE OF MONTANA

Senator BAUCUS. The hearing will come to order.

Good morning. The Subcommittee on Environmental Protection convenes today to consider the oil spill in Alaska's Prince William Sound.

Like most Americans, I have watched the TV news reports of the ecological disaster—the oil-soaked coastline, the dying sea otters, and the struggling water fowl—and, like most Americans, it has made me angry.

The challenge is to turn our anger into constructive improvements so that it will not happen again, and that is what this hearing is all about.

We are dealing with human failure—a captain who may have been drinking, an unqualified third mate at the helm, and, as President Bush says, an aberration. But we are also dealing with policy failure. Aberrations, after all, are what contingency plans are designed for. We don't call them certainty plans or routine plans; we call them contingency plans. And the President is wrong if he thinks this aberration cannot occur again.

We have to see those aberrations that can occur when we ship billions of barrels of oil through a pristine area. We must prepare for them. And when the worst happens, we must implement the plans quickly and effectively.

That is what the American people expect. But what we see on our TV screens each night instead seems like an unending exercise in wishful thinking.

The contingency plan put together by Alyeska was wildly optimistic, and the amount of equipment and personnel that was needed was insufficient. Also, it was too optimistic in the sense that they could not mobilize quickly to respond to a 200,000-barrel

oil spill. There were not enough booms, skimmers, and other equipment on hand in Valdez, and key pieces of equipment that were on hand took many precious hours to get ready.

Alyeska, Exxon, and the administration have been unbelievably slow to appreciate the magnitude of the response that would be needed to deal with a spill of this size. As a result, there has never been a time when the situation was under control, and a spill that was 6 square miles in size on the day of the spill now covers some 3,000 square miles.

Fifteen years ago, the Congress agreed to ship oil through Prince William Sound. That action was based on assurances by the oil industry and others that the risk of a major oil spill was remote and that a contingency plan would ensure prompt cleanup and minimal environmental damage.

The complete breakdown of the environmental safeguards that were supposed to accompany transport of North Slope oil through Prince William Sound calls into question the adequacy of these protective measures throughout the oil production and transportation system in Alaska.

Consequently, Senator Chafee and I will begin this morning and continue in subsequent hearings to look into these failures and into the allegations concerning air and water pollution at Alyeska's Valdez terminal and improper and careless management of hazardous waste at the terminal and on the North Slope.

We have a long list of important and knowledgeable witnesses this morning, and I look forward to the testimony of those witnesses who are here as well as to the points and the questions of various members of this committee.

I would like to now turn to the ranking member of this committee, a very valuable member of this committee, Senator Chafee from Rhode Island.

OPENING STATEMENT OF HON. JOHN H. CHAFEE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator CHAFEE. Thank you very much, Mr. Chairman.

I want to again express our appreciation to you for scheduling this hearing on what will surely rank as one of the worst environmental disasters of this century.

A great deal has been said about the magnitude of the spill. The accident is having a pervasive effect on Alaska's environment, its fish, its animals, and the people who live there.

The purpose of this hearing is not to get another status report on the cleanup operation but to scrutinize the fundamental shortcomings of the Federal and State Governments and the oil industry which led to the catastrophe. Our focus today should be to learn what Congress must do to make certain this does not happen again. We must take steps to assure that oil spills, when they do occur, are quickly contained and cleaned up.

From all accounts, the cleanup crews initially responding to this spill acted more like the Keystone Cops than the well-trained oil spill response team described in the industry's contingency plan.

Generally, I ascribe to the theory that industry can do the job better and more efficiently than the Federal Government. After

reading accounts of how Alyeska botched the initial response, delaying for several critical hours the launching of a fully equipped barge, I am left to wonder.

Perhaps government needs to step in. It might be necessary for government to deploy a response team similar to a fire-fighting operation and require industry to pay the bill.

It is now apparent that Alyeska and the oil industry grossly underestimated the value of the pristine environment and the cost of protecting that environment.

Until the early 1980s, Alyeska maintained teams of oil spill experts on 24-hour alert. But these teams were abolished in order to save money.

The amount of chemical dispersant on hand to treat oil spills was only a fraction of what was necessary for a spill of this size. This is evidence of a conscious decision to cut corners; in so doing, to imperil the environment.

I would like to conclude with one observation. This oil spill, it seems to me, should be viewed in a larger context. It is a highly visible consequence of our increasing dependence on oil. There are other, more severe consequences which, over the long term, could make this oil spill pale by comparison.

I am referring to the greenhouse effect. The gases being emitted from tailpipes of our cars and powerplants are undoubtedly causing a dangerous shift in the Earth's climate. The potential effect of this warming of the globe is nothing short of potentially being catastrophic. We must adopt a national policy that will clearly move us away from increasing dependence on fossil fuels and toward a reduction in the emissions of carbon dioxide and other greenhouse gases.

The oil spill, it seems to me, should be a warning sign. It should tell us we must reduce our dependence on oil by conserving energy and concentrate on developing new, safer sources of clean energy.

I want to thank each of our witnesses for coming here today, some of whom have come considerable distances, and a special thanks to Governor Cowper from Alaska for making this trip to Washington to give us his first-hand assessment of the oil spill and its implications.

Thank you very much, Mr. Chairman, for these hearings.

Senator BAUCUS. I thank the Senator.

Before we turn to other members of the committee, I would like to ask our first witness, Senator Stevens, the senior Senator from Alaska, what his time frame is. Ted, I want to accommodate you, and I also want to give other Senators an opportunity to make their opening statements.

Senator STEVENS. I would like to hear what the leader has to say, as a matter of fact.

STATEMENT OF HON. GEORGE J. MITCHELL, U.S. SENATOR FROM THE STATE OF MAINE

Senator MITCHELL. I will be glad to. I was willing to defer to you.

I have just a very brief statement, and then I have to leave.

Mr. Chairman and Senator Chafee, I commend you for holding this hearing. I join you in thanking all of the witnesses for being here.

I understand this is not a hearing on any legislation although, as you know, I have introduced legislation to clarify Presidential authority in such matters because I believe that in this case there should have been a much more prompt and vigorous Federal response and hope that that will occur in the future.

Twelve days ago, the President publicly acknowledged that Exxon's efforts, standing alone, are not enough to clean up the oil spill in Prince William Sound and to prevent further damage. It is distressing that the administration took 2 weeks to come to that conclusion. Virtually everybody else in America reached that conclusion in the first few days following the accident when little progress was being made in removing the oil.

Also troubling is that, a full week after the President announced his decision to add Federal resources to the cleanup, the New York Times reported, and I quote, "The Federal Government's role remains a minor one on the front lines, and the cleanup remains a slow, chaotic effect."

The administration was slow to comprehend the magnitude of this disaster and did not promptly exhibit the needed sense of urgency in responding to it. Valuable time—indeed, the most valuable time—was lost. There should have been a swift and decisive response in the hours and days immediately following the accident. Unfortunately, there was no such response.

Under the Clean Water Act, President Bush could have acted promptly to assume control of the effort to contain and remove the spill. I believe he should have done so. The President chose instead not to use the power available to him under the law to assume control of the effort.

To reach that decision, the President had to have concluded that the cleanup of what was the largest oil spill in our Nation's history would, in the words of the law, be done properly. He had to conclude that the cleanup of this spill was being done properly.

I believe that conclusion was clearly in error. I know of no one else who has concluded that the cleanup has been done properly, and the administration now has acknowledged that to be the case.

The Federal Government must ensure that there is a prompt and effective response to large oil spills that have the potential to cause serious environmental and economic damage. The opportunity for such a response in Prince William Sound can never be regained.

The task left to all at this point is to make use of the opportunities that remain to prevent the oil from causing further damage, to proceed carefully with the cleanup in the months ahead, and then to change the law to make sure that, to the extent humanly possible, this does not occur again.

As I indicated, Mr. Chairman, I believe the central change in the law must be to give the President clear and explicit authority to assume control unless the President specifically determines—specifically determines— affirmatively that the cleanup is being done properly and therefore no Federal action is warranted.

I think, in view of the enormous magnitude of the potential for damage, environmental, economic, and other, that the Federal Gov-

ernment has a precise and specific responsibility to take control to try to minimize that damage to the extent possible.

Again, Mr. Chairman, I thank you for your courtesy in permitting me to go ahead.

I may have questions for some of the witnesses that I would submit in writing, and I join you in thanking all of the witnesses for coming here today.

Senator BAUCUS. Without objection, your written questions, if any, will be submitted for the record.

Thank you very much, Senator.

Senator Lautenberg.

OPENING STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM THE STATE OF NEW JERSEY

Senator LAUTENBERG. Thank you, Mr. Chairman.

I, too, want to welcome the witnesses.

I have had a chance, as chairman of the Transportation Subcommittee of the Appropriations Committee, to visit the site with the Coast Guard, and I am pleased to see Admiral Lusk here today.

Secretary Skinner has had so many appearances on this matter that I am sure it is not easy to review the material again. But both he and Administrator Reilly, within a matter of days of one another, visited the oil spill location. What we saw there, as far as I was concerned, was ecological devastation unequalled in the country.

This hearing can help us find out what happened and will enable us to work to prevent it from happening again.

It is hard to describe the impact of the environmental disaster. We may not know the full extent of the damage for years, and it is likely that the economic injuries felt by the local community will go far beyond that and may influence, ultimately, a national policy in terms of how we explore for oil and what we do about providing the energy necessary to fuel our economy.

There are lots of questions about how this could have happened. In the few days that I was there I saw enough blame to pass around to lots of parties. I do not exempt anybody. I think that the pipeline's behavior certainly bordered on almost casual.

The Coast Guard, I think, perhaps with a little difference in systems structure, may have been able to communicate more directly with the helmsman at the time.

Exxon—and we are going to hear from them later—has been chastised publicly in hearing after hearing for the slowness of their response, and once again, the mission is not to lay blame but rather to learn from that.

We cannot necessarily move from here unless we know fairly well what happened. So we have got to improve Federal oversight of spill contingency plans. It is unclear if the Coast Guard had the authority to do anything more than review and critique spill plans. We need to make it clear.

Coast Guard and the EPA should have the mandate to review them and then approve or reject them, and we cannot just assume a potential spiller will do what is necessary.

I am working to put legislation in place. We need to assure you that the contingency plans are adequate. In Valdez, it was assumed that a spill of more than 200,000 barrels just could not happen. Well, what could not happen did happen.

Last week I asked the Coast Guard to look at spill plans for the New York Harbor and the Delaware River, and I have serious concerns about whether those plans, as well as those for other major petroleum ports around the country, are good enough to do the job.

We heard from Senator Adams from the State of Washington. He was very much concerned about Puget Sound. Perhaps it is inevitable that spills will happen. Well, we should be sure that we can respond to them quickly and effectively. I don't want to see workers sponging oil off rocks in the Delaware Bay, New York Harbor, or Puget Sound.

Finally, there is the question of the role that alcohol may have played in this. The Coast Guard apparently did not know that the captain had a history of drunk driving. Exxon did. The captain of the *Valdez* could not legally drive his car, but the company let him drive a 1,000-foot tanker loaded with crude oil. That does not make sense.

Mr. Chairman, I commend you for holding this hearing, and I look forward to the testimony that we are going to hear from these witnesses today and to move ahead with much-needed oil spill legislation.

Senator BAUCUS. Thank you very much, Senator Lautenberg.

Senator Reid.

OPENING STATEMENT OF HON. HARRY REID, U.S. SENATOR FROM THE STATE OF NEVADA

Senator REID. Mr. Chairman. I appreciate the opportunity to participate in this hearing.

Last Thursday, I introduced legislation to eliminate the Federal tax deduction for the cost of inadequate cleanup of oil spills and hazardous substances.

I have, Mr. Chairman, a longer statement and would ask unanimous consent that it be made part of the record, and I would make the following statement at this time in lieu of that.

American citizens are paying for the Alaska oil spill three times: one, in the destruction of the environment; two, in higher prices at the gas pump due to the so-called temporary shortages in oil; and, three, in what I believe is an unjustified tax break that Exxon is planning to claim for helping the Federal Government clean up the oil spill.

My bill will eliminate the deduction when cleanup is inadequate. We must protect the American taxpayers and our invaluable natural resources.

By now all Americans are aware of the horrible destruction by the Valdez oil spill. Well, what happens now? Mr. Chairman, let me read the quote from Mr. Don Cornet, Exxon's Alaska Coordinator, speaking about spill cleanup, and I quote:

> It is just like any other normal expense of doing business. If it, the cost of the oil cleanup, gets to the consumer, that's where it gets. We are in the business of serving the American consumer. You hope it doesn't happen, but if it does, it is just another cost of doing business.

Let us remind ourselves, the spill occurred on March 24. On April 15, Exxon issued its cleanup plan, over 3 weeks after the spill. I am shocked, I am sure that is an understatement, but I am shocked that cleanup techniques and a plan were not ready to go. I am even more shocked at the damages.

But there is much more. The issue goes deeper into a fundamental American principle; that is, the entrusted use of publicly owned natural resources. Its foundation is a commitment by the user to protect and respect all these resources, to care for them as a matter of public trust and privilege.

In Alaska, we are talking about world-class resources not owned by Exxon but by all Americans. The sea otters, salmon, millions of birds, and humpback whales which were returning from the area around Hawaii really belong to all of us. We entrusted Exxon to safely extract and transport oil amid these resources. They betrayed the trust, damaged our resources, and are showing an inadequate response now.

Mr. Chairman, I have questions to ask, as do the other panel members. I appreciate the ability to ask them at the appropriate time and, as I indicated, would ask unanimous consent that my whole statement be made part of the record.

Senator BAUCUS. Without objection, it will be included.

[Senator Reid's statement follows:]

OPENING STATEMENT OF HON. HARRY REID, U.S. SENATOR FROM THE STATE OF NEVADA

I appreciate the opportunity to participate in this hearing. Last Thursday I introduced legislation to eliminate the federal tax deduction for the cost of inadequate clean-up of oil spills and hazardous substances.

American citizens are paying for the Alaska oil spill three time: One, in the destruction of the environment; Two, in higher prices at the gas pump due to the so-called "temporary" shortages in oil; and Three, in the unjustified tax break Exxon is planning to claim for helping the federal government clean up the oil spill. My bill will elimiate deduction when clean-up is inadequate. We must protect the American taxpayers and our invaluable natural resources.

By now all Americans are aware of the horrible destruction by the Valdez oil spill. But what happens now? Let me read the quote from Mr. Don Cornett, Exxon's Alaska Coordinator, speaking about spill clean-up: "It's just like any other normal expense of doing business. If it (the cost of oil clean-up) gets to the consumer, that's where it gets. We are in the business of serving the American consumer. You hope it doesn't happen, but if it does, it's just another cost of doing business".

Our Nation has watched with horror with the damage 11 million gallons of oil spilled from the Exxon Valdez is doing in Alaska. Thousands of fish, mammals and birds have already died and thousands more are sure to meet their end. World class scenery and resources have been despoiled for years. The economic survival of entire cities is threatened. Families are suffering severely.

With such a catastrophe, you would expect a quick, effective response to contain and clean up the spill. But the response of Exxon Corporation and the federal government has been very disappointing. Exxon simply was not prepared for a spill. Containment and clean-up equipment and emergency plans were not ready to go. Local residents decided to use their own boats and makeshift containment structures rather than waiting on Exxon.

Let us remind ourselves: The spill occurred March 24. On April 15, Exxon issued its clean-up plan—over three weeks after the spill. Otto Harrison, general manager of Exxon USA said when announcing the plan: "We have been working to complete a comprehensive onshore clean-up plan". . . .with the best balance of clean-up techniques with minimal environmental damage" The Washington Post stated: "The Coast Guard demanded the report after Exxon failed to produce a plan for the spill. . ."

Alaska Department of Environment Conservation officials requested a plan one week after the spill, but their request was essentially unanswered for two weeks.

Officials stated: "Exxon's initial response was inadequate" and that Exxon's clean-up effort has been: "complicated and hampered by a lack of organization and a lack of understanding of how big the problem was." While all this was going on, precious time slipped away, and continues to slip away as we speak. Fishing seasons have been cancelled. Thousands more animals have died, and Alaskan families have been jeopardized.

I am shocked clean-up techniques and a plan were not ready to go! I am even more shocked at the damages. But there is much more. The issue goes deeper—into a fundamental American principle. That is the entrusted use of publicly-owned natural resources. It's foundation is commitment by the user to protect and respect all these resources—to care for them as a matter of public trust and privilege. In Alaska, we are talking about world class resources, not owned by Exxon but by all Americans. The sea otters, salmon, millions of birds, and humpback whales returning from Hawaii belong to all of us. We entrusted Exxon to safely extract and transport oil amid these other resources. They betrayed the trust, damaged our resources, and are showing inadequate response.

Entrusted use is dependent on incentive to not destroy. What incentive is there if the public pays for damages? When you are entrusted with public resources and abuse this trust, you cannot ask the public to pay for your abuse. The abuser must pay. Abuse of this magnitude raises the question if the public can trust you again with their precious resources.

Citizens are changing their priorities on conservation. The old notion that environmental destruction is the price of economic progress is now being rejected. Environmental destruction prevents economic progress. America must demonstrate conservation leadership and show our principle of entrusted use is paramount. Corporations wanting our trust with our resources must also hold this principle paramount.

Senator BAUCUS. Senator Lieberman, do you have a statement?

OPENING STATEMENT OF HON. JOSEPH I. LIEBERMAN, U.S. SENATOR FROM THE STATE OF CONNECTICUT

Senator LIEBERMAN. I do, Mr. Chairman. Thank you very much, and thank you for convening these hearings.

We know now that the wreck of the *Exxon Valdez* is one of the worst environmental disasters that this Nation has ever had, but what we do not know completely is what we can do to avoid a repeat of this kind of disaster.

One lesson, it seems to me, is clear, which is that catastrophic accidents can and will happen and we had better take that reality into account when we make decisions that involve our environment and when we plan for the consequences of those decisions.

This accident demonstrates the fragility of nature and the fallibility of man. It thus leaves us not with one mess to clean up but with two, the one that is in the water, that we all know about, and the one on the books, in the laws and the contingency plans that failed us and that may prevent us from adequately protecting Alaska's environment and exacting the kind of justice that the American public in fairness demands.

Clearly, there was not enough planning for a catastrophe like this. If there had been, there would not have been a drunken captain, there would not have been an unqualified third mate piloting the boat, there would have been enough booms and equipment on the scene to deal with the spill; and there would have been a more coordinated, quicker, aggressive governmental response to the accident.

From the start, we created a system of oil transportation and a set of laws that simply did not contemplate this kind of disaster, even though there were many who repeatedly predicted that it

would happen. We acted as if we did not live in the real world, where oil and water do not mix; the world of a Bligh reef in Prince William Sound and Captain Hazelwood and unpredictable weather conditions.

Just take a look at the law, and we can easily see that it provides neither the framework for establishment of a safe oil transportation system nor the deterrent to lead a company like Exxon to work hard enough to prevent an oil spill and to be prepared if one occurs.

In contrast, Mr. Chairman, look at the Superfund law, which covers hazardous wastes dumped on land. It gives the government the power to order polluters to clean up and to order them to pay triple the cost of the cleanup if they do not, and to pay a penalty of up to $25,000 per day on top of that.

But when it comes to oil dumped in water, it seems that we have gone easy on the oil industry, for the Clean Water Act gives the government no power in an oil spill to order a cleanup, no power to assess triple costs if the cleanup does not occur, and no power to impose a $25,000-a-day penalty. In fact, it appears that the biggest civil fine we can impose on Exxon for this spill under the Clean Water Act is $5,000, less than 1/20 of 1 cent per gallon of oil spilled.

Mr. Chairman, it is important for us also to compare the multi-billion-dollar Superfund for land-based cleanups to the $6.8 million fund that was available for oil cleanups. I suppose, in a way, it is a good thing that Exxon has come forward and is paying for the cleanup so far, because we sure couldn't afford to do it ourselves with what we have in the bank.

The Clean Water Act does have a saving grace when it comes to oil spills, and that is, it calls for the convening of a national response team in the event of an emergency to coordinate the activities of up to 14 Federal agencies in responding to a major spill. Yet that tool, it appears, was not brought together until 4 days after the accident, and we need to know why that happened.

The American people are frustrated, and they are angry. They don't like the fact that Exxon may be taking a tax break for part of its cleanup costs, and I know how they feel. They will not like it when they hear the company may face a civil penalty of only $5,000 for this massive spill, and they are suspicious that gas prices have been jacked up by the oil companies to take advantage of this spill, this disaster.

We owe it to the people to figure out why Exxon and the government were not better prepared for this spill and what we are going to do about the inadequate contingency plans and laws that we have discovered since it happened.

I look forward, Mr. Chairman, to testimony from the witnesses this morning, and I hope they can respond to some of the concerns that we all have so that we can avoid a similar disaster in the future.

Thank you.

Senator BAUCUS. Thank you very much, Senator Lieberman.

Our first witness this morning is the Honorable Senior Senator from Alaska, Senator Stevens.

Senator CHAFEE. Mr. Chairman, before we start, a one-minute interruption. I have a statement from Senator Warner, who has a

conflict and could not be here. He would like to put it in the record.

Senator BAUCUS. Without objection, Senator Warner's opening statement will be made a part of the record, as well as a statement of Senator Burdick, chairman of the committee.

[The statements referred to follow:]

STATEMENT OF HON. QUENTIN N. BURDICK, U.S. SENATOR FROM THE STATE OF NORTH DAKOTA

I want to commend the chairman of the Subcommittee on Environmental Protection, Senator Baucus, for holding this important hearing.

The tragedy in Price William Sound has touched everyone who has heard the area's fishermen describe what the spill has done to their way to life or who has seen sea otters covered with oil.

The Exxon tanker never should have run aground on Bligh Reef. It was an accident that could have been prevented. We need to work to reduce the chances of similar accidents. But there is no way to ensure that there will not be another major oil spill.

What turned this accident into a major disaster was that no one was prepared to respond quickly and effectively. We have a responsibility as stewards of Prince William Sound's pristine environment to be ready to deal with the consequence of an accident like the one that happened.

Besides moving to ensure that the cleanup job is completed in a sound manner, we must learn from the errors that were made and resolve to make sure that they do not occur again.

Thank you.

STATEMENT OF HON. JOHN W. WARNER, U.S. SENATOR FROM THE COMMONWEALTH OF VIRGINIA

Mr. Chairman, thank you for holding this hearing. While other committees have already had hearings on this matter, I think it is entirely appropriate for the environment committee to hear first-hand about public and private efforts to respond to the tragic accident of the *Exxon Valdez.*

I want to be brief, but I also want to note that there seems to be ample criticism to be handed-out at every step of this process, from the spill itself to the manner in which the Federal Government has handled its response to the spill.

Similarly, I think the committee should commend those persons who are fighting this problem up in Alaska. While it is easy to sit here and condemn, we should also praise those men and women who are hard at work cleaning up this spill.

The primary thing I would like to hear about today is the adequacy of oil spill contingency plans. Almost every person with whom I have discussed this matter has agreed that existing contingency plans were inadequate to cope with the huge 10 million gallon spill in Prince William Sound.

I think it is in the best interests of all of us—and particularly those of us who have major bodies of water in or abutting our States—to find out as much about contingency planning and how to prepare for accidents as we can.

We Virginians are fortunate to have part of the Chesapeake Bay in our State. While the Bay differs considerably from Prince William Sound in the types of problems a shipper may encounter, there is far more traffic in and out of the Bay everyday than in the Sound. Obviously, that level of traffic increases the likelihood of a collision and spill.

Furthermore, the average tanker plying the Bay carries about 20 million gallons of petroleum product—twice what was spilled in Prince William Sound.

And, as recently as last year, over 200,000 gallons were spilled off Smith Point in the Bay. My office is working with the Chesapeake Bay Foundation to encourage the Coast Guard to take steps to improve the chances of defending against an accident in the Bay, and I will have questions to that effect for the Coast Guard later this morning.

But, as I said, I am interested in hearing from the witnesses, so I'll conclude here, with a promise that I will pursue the Chesapeake Bay matter with the Coast Guard and the EPA at the earliest appropriate time.

Thank you, Mr. Chairman.

Senator BAUCUS. Senator Stevens.

STATEMENT OF HON. TED STEVENS, A U.S. SENATOR FROM THE STATE OF ALASKA

Senator STEVENS. Mr. Chairman, I thank you and the members of the committee for taking your time on this, and I appreciate the time afforded for me to convey to you some of my observations.

I would ask that my full statement appear in the record.

Senator BAUCUS. Without objection.

Senator STEVENS. As the chairman knows, I have another conflict.

Senator Lieberman, in time we are going to look into the whole event to see why this spill happened and why so little was done during what I think—the first 60 hours—was the controllable period.

During those first few hours, as you say, there was very little done that accomplished anything. During those hours I think there was an opportunity to control the spill. After that time passed, in my judgment, based on my visit there, I think that the spill was basically uncontrollable, and it was a question of trying to limit damage rather than control the spill.

The National Transportation Safety Board is now in Alaska today starting hearings on these issues and particularly the allegation concerning the use of alcohol on board the *Exxon Valdez.* I think that the task before us now, as rightly stated by you gentlemen, is to find out if we have the mechanisms for restoring the Prince William Sound, reducing the risk of future spills, and assuring that there is an immediate and adequate response to any future marine disaster.

Let me tell you that I really admire The Commandant of the Coast Guard Admiral Yost. He will be returning, I believe, tomorrow to Washington to report to the President. He served as the Commandant of the 17th Coast Guard District in Alaska. He knew Alaska, and he was sent to the site by the President. I think his presence there is a direct result of the President's commitment to a thorough cleanup and a recovery from this spill.

While I sought the national emergency declaration that many of you mentioned, and I am sad the President did not make it, he personally told me he did that because he was advised by legal counsel that such action might take Exxon off the hook. Now, that is a defect, as the leader has mentioned, in this law that there is an ambiguity, and we must address that ambiguity.

But I think the President has acted as commander-in-chief to assure adequate support for the Coast Guard and to carry out his directives. The Department of Defense is acting in that regard.

Eight other Senators joined me yesterday in asking the President to request Exxon to put up $50 million in a fund that we can use to pay for these Federal activities. This payment would repay the monies they have actually already spent and what we know they will spend in the immediate future.

I think that is the greatest deficiency in the law that we passed at the time the pipeline was authorized. We did, Senator Lieberman, create a fund of $100 million. It is now $278 million. But, unfortunately, we have to use, and the State has to use, taxpayers' funds to carry out the activities mandated under that Act, so we do

not have to take money away from some other necessary activity such as the Coast Guard's drug operations, the Department of Defense and their worldwide activities, the EPA.

We have to reprogram Federal funds right now and I think that is a major mistake, and all of us who participated have to admit that that is a major mistake in that basic law.

Our Governor is sitting right behind us, Senators, Governor Cowper. He is going to testify before you this morning. I want you to know that my staff and I have reviewed the proposals he will make to you, and he speaks for all Alaskans when he speaks to you about these things. They are outlined in my statement. There is no difference among us in what we seek in terms of actions to meet this challenge.

Skipping through my statement, let me emphasize one thing. The problem I found is that there should be one plan for responding to an oil spill, and that plan should include one single, final authority to direct the response to the spill from the minute it happens. That did not exist in this situation. I think you will find there were several plans. But this spill suffered initially because of the divisions in decisionmaking authority as to how to deal with this spill, and you will see that.

I believe Congress must make it clear that a party at fault is not relieved from liability, as Senator Mitchell has indicated, so that there will not be this question of letting the party at fault out of liability if we act on the Federal level to assure immediate response.

Further, I think you should consider that every tanker be required to carry sufficient booms to contain the oil on it and small boats to immediately deploy those booms if they are required. And, further, I think we should have in every major port what amounts to a spill station, like a fire station. You mentioned this, Senator Chafee. We have fire stations all over our country.

We do not have any spill stations in any of these major ports, and ours is the first to have a major disaster. God forbid we will have more. But there ought to be something to have a prompt marine response. You should not have to mobilize on land in order to meet disasters at sea. It takes too much time.

In my judgment—and I urge you to consider it as you look at the Clean Water Act—there ought to be a commitment now to an Institute of Oil Spill Research in this area. This is going to be the laboratory for oil spills in the future, and there ought to be one there so we can know what are the long-term effects of this spill, and there will not be any questions about it. I think there ought to be a long-~~term~~ study of the effect of this spill on our environment.

Let me say to you, when I voted for this pipeline in 1973, I was assured that there were adequate responses that would be available in the event of a spill. We had, Senator Lieberman, in this law sufficient legal authority for everyone to act.

The problem was that, when we found this spill upon us, on March 24, we found that because of passage of time, elimination of some of the facilities that you mentioned, Senator Lieberman, some of the crews, some of the actual equipment that was necessary over a period of time, even in terms of modification of the Coast Guard's radar, modification of the time the pilot stayed with the boat,

modification of the time that the tug stayed with the boat, that the promises that were made to us in 1973 just could not be kept.

I urge you to wait before we point fingers, and particularly, I want to commend you for not calling people down here who are still involved in the cleanup, they are very necessary. But the time will come and we will get to that, I hope, and this committee will be the focus of that, and I want to assure you of our complete cooperation as Alaskans on a nonpartisan basis to see that this is done.

Knowing that you would have some maps brought to you, yesterday I asked the Oil Information Center that the Department of Interior maintains—and I commend them to you for being a source of information on this—to prepare a map that shows this region, and I have asked my staff to give them to you. I think that most people forget the size of this region, so just let me tell you, you could put three Great Lakes systems in the area that is affected by the spill.

Senator Lautenberg, you saw this. This is a massive area, and it is a massive problem, and we need your help, and we earnestly solicit it. So thank you very much for your time. I hope you will excuse me. If you have any questions of me, I would be glad to answer them.

Senator BAUCUS. I have one question I want to ask you, Ted, and that is this. I think we all know that we have to have much better contingency plans in the future; that is a given.

You mentioned perhaps booms on ships and small boats to deploy the booms and also spill teams perhaps in major ports. The major question that comes to my mind still is how are we to receive a better guarantee, if not a 100 percent guarantee, that even with all that, that it is going to work?

It just seems to me, reading the contingency plan here, that there is a lot of wishful thinking and everybody thought that everything would work right. Even with booms on boats and even skimmers available, if they are not up to date, if they are not in working order, if we do not have, it seems to me, drills to practice, we are still going to be faced with this problem again.

Senator STEVENS. They had a drill last summer. As I said, you are going to find four plans, the National Response Team plan, the Alaska plan, the company's plan. I think we had a State plan. I believe there is a fifth plan in there, but I know of four.

The real great problem that is involved here is the passage of time. When we passed this act, we were dealing with 140,000-barrel tankers. This is a 2.1 million-barrel tanker. Technology has evolved since then. We assumed that the plan was sufficient to include new technology as it evolved.

Get the naval salvage team in here, they will tell you that there were sea fences that, if they were on board the *Exxon Valdez,* and had they been deployed within a matter of hours, this would still have been a containable spill. The technology is there, Mr. Chairman. They have those sea fences in Europe.

Look into the way that the contingency plan evolved in the North Sea. When they had their disaster, that contingency was met fairly well. Our problem is that we have the habit in this country, like I told a group not too long ago, how long has it been since you looked at the value of your house compared to the possibility of a fire under your fire insurance? We are lax.

Here we had almost 9,000 trans-shipments of oil, and the tanker size increased. I read papers that indicated that spill risk was a function of the numbers of tankers, and most of the boom equipment was down in San Francisco. I don't know if you know it. That is because there are more tankers entering down there than there are tankers coming and going out of Valdez because we are using such large tankers now.

What I am telling you is, the law was not that bad. There are some defects, as I mentioned, and I think we should correct them.

Senator BAUCUS. It did not work, though.

Senator STEVENS. But the law was not the thing that was wrong. It was the implementation of the contingency plan.

I am not going to argue with you in terms of whether it ever could work, the question is, this one could have been done differently, and if it had been done differently, we would not have the size of problem and the damage we have had to our State now.

And if you all think you are suffering grief, I want you to know, you ought to talk to some—you did—talk to some of my constituents. I have fished in this area every year for almost 40 years. This is where I spend my vacations when I am home. I could hardly speak to people after I took that trip with Admiral Yost the first time I saw the spill. I cannot tell you the depth of our feeling, and I do not want to engage with you on who shot John, frankly, because it has happened. We cannot go back and prevent its happening again; it has happened.

Now, all I am telling you is, it might be in your back yard—it will not be yours in Montana—but it might be in your back yard next time, or yours, or yours, and I want to get you the ability to learn the lessons from this spill so that it will not happen in your back yard.

I do not think, in my lifetime, the Prince William Sound will be what it was before March 24, just as Alaska has not been the same as it was before the earthquake that happened 25 years earlier to the day.

This is a disaster of that proportion, and I regret deeply that our President did not see it that way. But it was on the basis of legal advice, and one thing about him, he is a good client; he follows his legal advice. But he has done the best he could under the circumstances. That is one thing I would disagree with you on.

This President, acting as commander-in-chief, has done what no other President ever did in a man-made disaster. He has put the full power of the Department of Defense as commander-in-chief behind this support now. I regret the delay over the legal problems of whether he had the authority to act under the law. He acted as commander-in-chief when it was fully brought to his attention.

Senator BAUCUS. Well, I am just trying to find a better way so that we can minimize the chance of recurrence. That was the point of my question.

Senator STEVENS. Yes.

Senator BAUCUS. Senator Chafee.

Senator CHAFEE. Thank you, Mr. Chairman.

First, Senator Stevens, I just want to say I am glad that you clarified the President's position on this. I regret that the majority leader, whom I served with on this committee for 10 years, and he

and I rarely differ, but I did differ with the statements he made in connection with his assessment of the President and the administration in connection with this particular matter, and I am glad that you elucidated the rationale that the President was moving on.

It was not that he was disinterested in any sense of the word; he received legal advice and made his decisions pursuant thereto.

Senator STEVENS. That legal advice is bad, by the way.

Senator CHAFEE. Well, I am not going to argue about that, I do not want to engage in a chastising of the President or the administration and its leaders.

Senator STEVENS. Thank you.

Senator CHAFEE. Thank you.

Senator LAUTENBERG. Mr. Chairman, if I might, while we still have Senator Stevens with us, the fact is that there was a decision made, and I, too, don't want to go into the subject of legal advice that directed the President's decisionmaking process.

But he was firm about who was going to take charge, and he said, "I'm going to leave it with Exxon." I don't know whether there was a legal basis for the decision, but the fact was that I don't think the magnitude of this disaster struck Washington until it was too late. Had we been able to move sooner, obviously, we would have been able to do things better.

The fact is, also, that were lucky in some ways. Admiral Lusk may want to comment on this, because the weather initially was not great. Within a couple of days, the weather had leveled out and gave us an opportunity to capture a lot more of the oil even though it was a small number, relatively speaking. What have we picked up, about 8 percent of the total spill?

Senator STEVENS. About 10 now.

Senator LAUTENBERG. When I got there, the seas were calm and the weather was better. Those booms could only handle a foot or two of wave action. Had there been anything else, we would have trouble trying to capture any of it.

Senator STEVENS. Let me tell you, Senator, I don't know of any Alaskan that asked the President to federalize the recovery. There are two sections under the law that came out of this committee. We did not ask for federalization. We asked for a national emergency, which would have given him the authority to appoint a Federal coordinator that would have specific powers under the law.

He did that; as commander-in-chief, he appointed a coordinator. But I believe that the problem was that Washington and everyone else was slow in realizing the tremendous cost of recovery—that is recovery of the Sound, the cleanup, and everything else—after it got out of control. By the time the wind came up on Sunday night and spread the oil around the Sound, as I said before, in my judgment, the only thing left to do was to try to prevent damage to the most valuable assets, because we just did not have enough boom to put out on 800 miles of beaches.

There is not enough boom in the world, I don't think, to corral that once it got out there. But the time I got there, it was down to Montague. By the time you got there, it had been about 30 miles—you were there the day before, and it had gone 30 miles between the time you left and the time I got there, and I think that means

that it was basically uncontrollable at the time except for the cost of the spill. In my judgment, it is going to cost a billion dollars before we are through to get that oil and its total effects out of the Sound, and we still will not have totally recovered the Sound.

I have taken much more time than I should, and I thank you all.

Senator BAUCUS. We have all taken more time that we had budgeted here.

Senator STEVENS. Again, I commend this to you.

Incidentally, Senator Chafee, if that ship was coming out of Portland, Maine, the spill would start about Kennebunkport, and it is now down almost to Washington, D.C. Figure that one out. That is a big spill.

Senator BAUCUS. Senator Murkowski, it is your turn.

STATEMENT OF HON. FRANK H. MURKOWSKI, U.S. SENATOR FROM THE STATE OF ALASKA

Senator MURKOWSKI. Thank you, Mr. Chairman.

Obviously, you can tell the extent of the feelings with regard to this spill, and I as well as our Governor, who is here, can give you some idea of the depth of which the hurt is in the hearts of Alaskans. We are indignant. We feel betrayed, misled.

Very frankly, we were led to believe that the contingency plan, the containments, would be adequate to meet such a disaster. That clearly was not the case. The oil spill is a major disaster for our State as well as our country. We are going to be paying the economic and environmental price for a long, long time.

It is important, as a consequence of your committee action, Mr. Chairman, that the Nation learn some hard lessons from this spill. We have become too complacent with the benefits of oil and not significantly aware of the costs. Now we are going to be aware of the costs.

The spill clearly demonstrates the need to reevaluate oil contingency plans and our ability to respond, not just in Valdez, Alaska, but throughout the United States.

Some actions that have been taken in general terms have been recommendations to withhold any further OCS lease activity associated with Lease Sale 92 in Bristol Bay. This is the main area where our red salmon runs come through, and until we have the assurance that there are adequate contingency and containment plans that are tested, I think it is prudent that we withhold from any such activity, and I have requested that action of the Secretary of Interior.

Also, it is my personal feeling that we should not take any further action on ANWR—that is the Arctic National Wildlife Refuge, where geologists believe that there is the greatest likelihood of major oil discoveries of a commercial nature to be made—no further action until we have the assurance that we have adequate containment and contingency plans—we certainly do not—in the manner in which the oil from Prudhoe Bay is transported to the market. Until we have the assurance that we have the capability to adequately address containment and contingency, exploration in Alaska obviously has to reassessed.

I am very pleased that Frank Lautenberg was able to visit, because he was there early and had an opportunity not only to see the extraordinary damage in Prince William Sound but to go on up the pipeline and observe Prudhoe Bay, and see where the Arctic oil comes from.

So it is important that there is the differentiation between the production of oil, the transportation of that oil through a pipeline, and then the risks associated with moving that oil to market by tanker, because they all have a different evaluation, and it is important that this committee recognize that.

The committee's oversight and investigation is crucial to the process that is under way, and I certainly welcome, Mr. Chairman, your involvement.

As Senator Stevens indicated, the response is a concern, and I understand you are looking at the response, you are looking at the cleanup and the spill. It is important that you refer back to those early hours after the accident, because the accident was an extraordinary combination of circumstances. I am not suggesting any excuses of what you might say was Murphy's law in action, because the containment barge had been laid up. It had been damaged in a rather minor manner earlier by a tugboat. They operated it all winter with the booms and the contingency gear ready to go.

But springtime was coming, the exposure to the storms was about over, so it was decided this was the time to repair the barge. The gear was removed and the barge was hauled out, and, of course, that was the night that the tanker left. After the pilot was dropped off, the tanker changed course to the inbound lane; there were two individuals at a Coast Guard radar station which is similar to air traffic controllers and were monitoring the departure of this vessel. It asked for a change of course from the outbound lane to the inbound lane to avoid some drift ice from Columbia Glacier that ordinarily would not have stopped the vessel; it was simply a precaution.

But then, during the process of changing command from the captain to the third mate, evidently the vessel was put on automatic pilot. There was confusion between the third mate, the helmsman, and all the course corrections were allegedly mandated from the third mate to the helmsman. The vessel did not respond because it was on automatic pilot, apparently.

There again, we see a situation where, by the time they initiated corrective action, they were in trouble. They bounced off one rock, evidently. The captain came up on the bridge. But in the manner in which the ship was swinging, it uniquely went up sideways, which is almost unheard of in a marine accident, as opposed to going bow first, and simply wiped out the bottom, and as a consequence, about 240,000 barrels, approximately 10 million gallons of oil, spilled out of that vessel sometime between 3 and 5 hours after the accident.

It is my understanding that the basic reason that the balance of the oil did not seep out is that that vessel drew 50 feet of water and the pressure of the oil moving out was finally equalized by the exterior pressure of the salt water, and since oil floats on water, there was a partial sealing of itself.

But, nevertheless, we saw that one aspect of the contingency plan was not available in the sense that the barge was being repaired. The secondary oversight of the two people who were monitoring vessel traffic on the radar did not follow this vessel further out. That could have been a safeguard that could have worked. It did not, and the confusion on the bridge and the fact that the master was not in command of the vessel and the drinking all contribute to factors that I think are very important.

But, clearly, as Senator Stevens stated, the first day after the spill, when they finally got going and got the barge back and got the containment booms and got out there, there was indecision on what to do, whether to put chemical dispersants in the water, whether the improvements had been certified for Alaska or just California, the question of whether it should be burned.

So, basically, there was a day-and-a-half lost, and these are the things that everybody was well meaning but mistakes were made by responsible people. This is the human factor that you have to consider as you reflect on this entire issue.

But the third day, the wind blew 74 miles an hour. It blew a roof off a hangar in Valdez. It was clearly lost at that time, and that was the day that the decision was to be made whether to use the chemical dispersants or burn it.

My point in going through this is to recognize that it is just not adequate to have contingency booms. People have to be able to make timely decisions on the spot, and they are going to be held responsible for those decisions. I do not think it is necessary that we point our fingers at one area, there are a lot of areas of responsibility on this, and hindsight is cheap.

I think it is important for this committee to keep in mind as it explores this issue that it was a problem with transportation of oil, not exploration, development, or production, and that is something that we see as we are sensitized in Alaska, naturally, to those that say this is proof that you cannot initiate exploration in ANWR because you cannot deliver the oil safely.

As I have indicated, we cannot assure that oil can be delivered by tanker safely, but there is minimal risk in exploration and moving it by pipeline on land. Those are important distinctions, Mr. Chairman.

Finally, marine transportation of oil, you might say, is a necessary evil; we cannot get away from it. About 50 percent of the oil in the United States moves by vessel, barged on our rivers, into our coasts, into our major ports; 60 percent around the world.

Reality dictates that we must continue to explore and develop our domestic reserves of oil or import more. Those are simply our alternatives. Do we want foreign oil? That is an alternative. That will come in by foreign vessel into the ports of the United States. We must ensure that the movement is safe.

As you look at your responsibility, as I do, I think you have to look at the exposure on Chesapeake Bay; you have to look at the exposure in San Francisco, Long Beach, Maine, all the areas, because this could happen anywhere at any time. Our containment plans are totally inadequate.

So, Mr. Chairman, I think as you look at alternatives, there is one that has been suggested that I think needs an examination,

and I will conclude my remarks with that. It is perhaps the most appropriate thing to do, not only to look at new chemical additives that can be utilized during a spill where the oil changes its consistency and its toxicity so that it can be picked up—and there are experiments in this area—but in the interim, perhaps, a conversion of a tanker that could have the containment booms, it could stand by like a fireboat, would have the capacity, as it picks up the oil and water, to store it as opposed to the situation we have now where it is very difficult to pick up this oil without going back and attempting to dump it because you pick up so much water. These are the kinds of things that we need.

So, Mr. Chairman, I would hope that the testimony that I have presented provides you with some direction and some reference from the standpoint of how the people of Alaska feel. That will be expanded on even more by our Governor.

Again, I commend you gentlemen for the opportunity to be heard this morning.

Senator BAUCUS. Thank you very much, Senator.

You and Senator Stevens have obviously agonized and anguished over this, as well as all other Alaskans and all other Americans and, for that matter, many people in all parts of the world.

It is very clear from your testimony, it is very clear from your statement, that you have given a lot of thought to this, and we will continue to work with you as we develop ideas and develop legislation to help minimize the recurrence of a travesty of this kind again.

You have bled for this problem, you and Senator Stevens both, and we appreciate your help.

In the interest of time, I would like to ask Administrator Reilly if he also could come to the witness table. We are getting a little bit behind schedule here.

We will begin with Secretary Skinner and also the Vice Commandant next; then I want to move to EPA Administrator Reilly.

Senator CHAFEE. Mr. Chairman, I wonder if Senator Murkowski might be invited to join us up here.

Senator BAUCUS. Certainly.

Senator CHAFEE. He is a former member of this committee. If he would like to sit up here, I know we would be delighted to have him.

Senator BAUCUS. Absolutely, yes. Frank, come on up here.

Senator MURKOWSKI. Thank you very much.

Senator BAUCUS. Our first official leadoff witness is Secretary Skinner, Secretary of Transportation.

Mr. Secretary, you have been to Alaska and spent a lot of time on this problem. We look forward to your testimony.

STATEMENT OF HON. SAMUEL K. SKINNER, SECRETARY, DEPARTMENT OF TRANSPORTATION, ACCOMPANIED BY VICE COMMANDANT CLYDE L. LUSK, U.S. COAST GUARD

Mr. SKINNER. Thank you, Mr. Chairman.

We had planned to give an oversight review. We are now about an hour late, so I will leave it up to your discretion. Captain Larrabee will give you an oversight on the chart if you want to know

where the oil has moved to on both sides, not only Prince William Sound and out, and I was prepared to give you a quick inventory of what had been planned earlier. Is that still your intention?

Senator BAUCUS. Why don't you go ahead and do that but perhaps in a somewhat abbreviated manner?

Mr. SKINNER. Well, it was in summarized form, anyway.

Captain Larrabee?

Captain LARRABEE. Thank you, Mr. Secretary.

Good morning, Mr. Chairman.

Senator BAUCUS. Good morning. Captain, if you could limit it to 5 minutes, we would appreciate it.

Mr. SKINNER. It will be shorter than that.

Senator BAUCUS. Good. Thank you.

Captain LARRABEE. After the original spill, over the next couple of days, the general trend of the oil was in a southwesterly direction, and the areas that were most heavily impacted were Naked Island, Smith Island, and Knight Island, as you can see on the chart.

This oil still remains in this area and has turned into a light sheen and a heavy mousse. That consistency is an emulsification of oil and water and has made skimming operations difficult because of the nature of the oil. Pumping has become a little bit difficult but is still being done successfully.

Before I leave this side of the chart, I would like to point out that this is the location of the *Exxon Valdez* right now. She is anchored just south of Naked Island. The vessel is undergoing additional temporary repairs, and tank cleaning is being made ready to be moved.

Senator BAUCUS. How far from the original spill is Naked Island, for example?

Captain LARRABEE. This is the port of Valdez. The original location was Bligh Island, about here, and the distance is about 30 to 40 miles to Naked Island. The total distance down the bay, just to give you some perspective, is about 70 to 80 miles.

Senator LAUTENBERG. How far was the vessel off the northbound lane when it hit Bligh Island?

Captain LARRABEE. I believe it was about 2 to 3 miles, Senator.

Senator CHAFEE. Captain, what do you do when you scoop up the oil?

Mr. SKINNER. Why don't we wait, Senator? I am going to ask that we do that and keep this orderly, because I have something I want to show you. Otherwise, we can go ahead.

Senator BAUCUS. I think that is better, yes.

Captain LARRABEE. This is a chart showing the Gulf of Alaska. The oil has generally moved in a southwesterly direction. Just to show some points of reference, this is Seward, Kodiak Island to the southwest, and Homer, Alaska. The oil, as I say, has moved southwesterly along the coastline. This oil also consists of a light sheen and a heavily weathered mousse. This mousse has, for the most part, lost a great deal of its toxicity.

We are finding yesterday and today through Coast Guard and NOAA overflights that this oil is affecting beaches and natural collectment areas around Nuka Bay and the Chugach Islands and

some minor impacts along the Afognak Islands on the northern part of that island.

Our general estimate right now is that of the 240,000 barrels that we lost, about 28,000 barrels have been recovered; about 84,000 barrels have evaporated; 12,000 biodegraded; 19,000 barrels have been burned; and 12,000 have dissipated.

In Prince William Sound, we now estimate that there are about 25,000 barrels still remaining on the surface of the water and 43,000 barrels have affected the beaches.

In the Gulf, we estimate that about 10,000 barrels are still floating in this area and the remaining 7,000 have affected the shore lines, as I pointed out.

Senator BAUCUS. Thank you.

Mr. Secretary?

Mr. SKINNER. First of all, I think it is important that the committee understand the product that went into the water during the first 5 hours. So, we have brought the product that was right off the *Valdez,* and I am going to just pass it around the committee, and they can get a feel for the product itself. I think it is very important. It is very thick and very difficult. If I could ask someone to do that. Thank you very much.

Senator BAUCUS. This is the crude that is on the tanker?

Mr. SKINNER. Yes, that is the crude in the tanker that went into the water.

Senator BAUCUS. Thank you.

Mr. SKINNER. At this time, we have four tank barges, one support barge, seven berthing vessels, 13 tugs, 12 landing crafts, 208 other vessels ranging from 20 feet to 195 feet, and 49 CDFU vessels.

In addition, we have additional berthing vessels on their way, consisting of approximately 800 beds. We have 193,000 feet of containment boom, 71,000 feet of absorbent boom. Fourteen thousand, five hundred feet is around the *Exxon Valdez.* So there is a total of 279,425 feet of boom deployed.

On the chart you will see the red are major Coast Guard vessels—the small red dots all over here on both sides, not only this side but more predominantly on the Prince William Sound side. You will see the number of vessels that are in operation right now performing a skimming operation or a containment operation and taking it off the islands. The big red dots are big vessels, cutters of some type, and the small red are all skimming vessels that are in all parts of the Sound right now.

Senator BAUCUS. Thank you.

Mr. SKINNER. Given the time, I will ask that my remarks be made part of the record, and I would only make some brief observations, and then I would entertain questions.

We can face this problem with two approaches in mind. Number one, we can sit around and blame each other because, frankly, as I look at the problem, as someone who has been relatively new in the situation, there is a lot of blame to go around.

The industry did not have an adequate plan—nowhere close to what was necessary, and even to this day, the industry has no real knowledge as to how to deal with a spill of this magnitude. Senator Stevens is absolutely right. We should learn from that.

Earlier administrations did not update the plan and did not insist that the State of Alaska, who has the responsibility for approval of the plan, and the industry stay current with available technology.

We have no adequate laws on the books, even though for 6 years there has been an attempt by the House and the Senate to get comprehensive oil spill liability legislation. Yet, it has been hung up on differences between the House and the Senate on what State preemption should exist and whether international protocols, which were negotiated and have been pending before the Congress for some time, should be approved.

All of that has led to the worst disaster in American history as it relates to this industry. There is no question, as a result of the first 5 hours, the genie, the proverbial genie, was out of the bottle. I am not sure at this stage the industry knows how to contain a spill of this magnitude in that amount of time. Frankly, I don't think they do.

If we had had the contingency plan at full force waiting on the docks, in my personal opinion, having been there and talked to the people, we probably would continue to have a spill, while not quite of this magnitude, which would be almost as significant.

No one is certain how to clean up the beaches and islands in Prince William Sound and other areas. We are experimenting with three different methods to do it, but no one is sure which one is best, and there was no pre-clearance with the necessary environmental groups on a method or proven methods, of cleaning up.

Finally, there is no mechanism that works effectively under the law right now for the Federal Government to take over this effort and have it properly funded and adequately supported. Putting aside the $5,000 fine situation that Senator Lieberman discusses—as he knows as a lawyer, there are a number of causes of action in both Federal and State court that Exxon, I am sure, will be subject to, but their liability under the law in one aspect is $14 million, and the fund cap is $200-and-some million.

The method that would be used to manage an effort of this magnitude, in the opinion of the President, and I believe correctly so, given the status of the law and the commitment that Exxon has made, was to overview and oversee the operation with Exxon's resources, full resources.

Now, there is no question that not only was the industry not ready to handle a problem of this magnitude; Exxon was not ready, either. There has never been a spill of this magnitude. If the industry had put the kind of time and effort and resources into preparing for this kind of disaster that they put into exploration, maybe we would be at a point where we could have contained and dealt with this.

I met with the senior official of the American Petroleum Institute yesterday and indicated the same thing to them. I think that the industry must bear responsibility, just as Exxon must. As Senator Lautenberg pointed out, we became complacent because there was no disaster of this magnitude. The largest spill before this was 5,000 barrels. Now we are dealing with a 240,000-barrel spill.

It is going to be a long, tough fight through the rest of this year to restore Alaska to anywhere close to its environmental quality

before the spill. It will take time. Nature, to some degree, will have to do its job. We have to prepare the environment for nature to do its job. If we do not do that this summer, we will have a disaster that will have permanent scars on the environment for an extended period of time.

The President and I are committed, as are the Department of Defense and the Department of Transportation, to doing everything we can. If there are options available to deal with this, even ignoring in some cases legal opinions, but taking the most-positive-to-solving-the-problem opinion. At the same time, we will again be supporting and will be sending to the Hill shortly comprehensive oil spill legislation.

I look forward to working with this committee and the House committee in, hopefully, reaching conclusion on that issue that my people tell me has been debated back and forth for almost 6 years. There is consensus, I believe, Senator, on the concept. I think we have to overcome some of the State-right preemptive issues that, while the Administration and the Senate have disagreed, I think the time has now come for closure on that issue.

At the same time, we must look forward and update our contingency plans, and I think it is up primarily to the industry, who has the responsibility for producing this product, to come up with, under Federal and State guidance on a coordinated basis, plans that make sense, and to spend some of the billions of dollars that they have available on research and the development of technology.

With those comments in mind, I am accompanied by Vice Commandant Lusk. I am in daily contact, obviously, with Commandant Yost, and I will entertain any questions you have.

Senator BAUCUS. I thank the Secretary.

Before we move to questions, though, I would like to ask Administrator Reilly for his statement, please.

STATEMENT OF HON. WILLIAM K. REILLY, ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY

Mr. REILLY. Thank you, Mr. Chairman, members of the committee.

I will ask, also, in the interest of time if my statement might be submitted for the record.

Senator BAUCUS. Without objection, it will be included.

Mr. REILLY. I appreciate very much the subcommittee's interest in the causes, the effects, the response, the long-term recovery plans that we need to make to this calamitous spill.

I accompanied Secretary Skinner and Commandant Yost, at the direction of the President, to Alaska a few days after the spill occurred, and I indicate in my testimony a number of reactions and things that I think at this relatively early stage we can infer from the lessons of the spill.

But I am prompted by something you said in your opening statement and Senator Chafee observed about the purpose of this hearing being to look at some of the fundamental lessons of the spill. Insofar as we can at this point, I would like to reflect on three or four of those that occur to me.

The first is that the alertness, readiness, and emergency response capability can flag, can become sloppy and flaccid over many years without a real test, without a real emergency. Overconfident, too assured, finally unprepared; I think that was the reality that we confronted in Prince William Sound.

Secondly, a spill of very great magnitude can occur. It can happen, and in very critical environmental areas such as Prince William Sound, with a pristine environment, with an often inhospitable climate, it needs to be planned for and it needs to be prepared for.

I am reminded that back in the early 1970s there were many people who predicted that a spill of this sort might occur, would occur, was likely, given the odds. Many environmentalists expressed concerns and caution, and I think that given the terrible consequences of getting it wrong, we have got to take those critics and the kinds of questions they raise, they did raise before, and they raise about this and other kinds of environmental problems very, very seriously.

Third, without, myself, in any way pretending to be an expert on oil cleanup/spill technology, I took away from our visit to Alaska the impression of a relatively primitive, undeveloped, unevolved technology. The skimmers that we were able to see and were informed about were up there and handled 500 gallons an hour. There were, as Secretary Skinner has described, more than 10 million gallons of oil in the water. I think there are something like 45 or 46 skimmers in the Sound at this time.

The skimmers do not work very well when the oil takes on an emulsified quality, mixes with the water, becomes more viscous and difficult to process. They break down and have to be repaired.

We saw any number of booms that were broken due to the 73-mile-an-hour winds that had taken place the day before we were there, and yet I understand that even with the seagoing booms, a current of 1½ knots an hour will move oil relatively quickly under them and through them.

We did not see, really, any evidence of a capacity to do bioremediation, to look at the possibilities of introducing the kinds of technologies that we are learning about, hearing about, and, hopefully, are going to be able to bring on in the years ahead to deal with something of this sort.

I think the long and the short of it may be that we have, all of us, become somewhat preoccupied with more exotic problems, with toxics, with hazardous spills of various sorts, and the relatively conventional types of problems such as this with which we ought to be much more familiar and ought to have a much better response capability, we paid too little attention to.

Fourth, with respect to recovery, there are several assessments under way by a number of Federal agencies—NOAA, the trustee agencies, Interior, Department of Agriculture, the Forest Service, and the Fish and Wildlife Service.

The President has directed that I serve as the coordinator for the long-term recovery of the Sound and of the related areas. We have at EPA assembled a team of 30 very distinguished scientists, experts on bioremediation, and they are proceeding to develop some plans. They are going to develop and approve the protocols that

will judge the adequacy, the safety, the appropriateness of a lot of approaches that are being recommended, techniques that are being suggested by various people to Exxon, and we will work on that to try to effect an experiment with one of these approaches using nutrients, phosphorous, and nitrogen in the relatively near future in the Sound.

We are also organizing an Alaska Recovery Task Force. We expect to convene that in the near future, with an advisory committee, a public advisory committee and a scientific advisory committee.

Finally, the National Response Team is going to be the first of many entities to report on this spill. We expect to be able to share the report with you within a very few weeks. It will address the status and the preparedness for this incident. It will assess the response actions taken. It will provide a preliminary description of effects, at least as much as we can say in that time, and then look at the kinds of followup actions that are needed and discuss the lessons learned.

There are also efforts under way overseen by the National Response Team to look at contingency planning for the other ports in the lower 48. One cannot but suspect that, in a place such as Prince William Sound, where there has been enormous concern, where there has been a pristine environment, where the political visibility of this activity was very, very high, if we were so ill-prepared there, we may be as ill-prepared in many other places as well.

Thank you, Mr. Chairman.

Senator BAUCUS. Thank you very much.

There is a vote going on now. This is a very critical part of the hearing. I want the entire committee here. So the committee will recess for no more than 8 or 9 minutes. We will come back immediately and resume in about 9 minutes.

[Short recess taken.]

Senator BAUCUS. The subcommittee will resume.

Mr. Secretary, 4 days after the spill occurred, you traveled up to Prince William Sound, to Valdez, and inspected the area. You said at that time that the cleanup was going at full speed; there was no need to federalize.

According to the Coast Guard's pollution report, 2 days later, in a teleconference with the on-scene coordinator, you again expressed confidence in Exxon and in Alyeska, that they were doing a pretty good job. At that time, the spill had increased from several square miles just 6 hours after the accident to about 800 square miles.

About a week after that, a full 2 weeks after the accident, President Bush announced that Exxon's efforts standing alone are not enough; that is, at that time the administration decided to, to some degree, take over and exercise some Federal control. At that time, too, the spill had reached 1,000 square miles.

So my first question is, it is a given that virtually no progress was made in cleaning up the oil in the first week. What led you to conclude that Exxon's cleanup was going well and that no greater Federal involvement was needed at that point?

Mr. SKINNER. Let's divide the issues.

First of all, I was convinced then and I am convinced now that Exxon is attempting to assume their responsibility that I think the American people perceive is necessary to deal with this problem.

I assumed at that time that the industry, not just Exxon but the industry, not only would put out their resources and effort, but was prepared with the expertise they had, with the resources they had, and with the planning capabilities I know companies like that have, not only to have a commitment, which they had made, but would be able to fulfill that commitment.

When I was there, I saw hundreds of people. I saw equipment and people coming in on a regular basis. I saw Exxon contracting for most of the absorbent boom that is available in the United States. It was our opinion at that time that, given the fact that the genie was out of the bottle, and realistically, the cleanup was going to be for an extended period of time—not a week or a month but months, Exxon had reached into their pockets and had indicated a willingness to commit significant resources to the problem.

The federalization would have taken Exxon off the drawing board, so to speak, would have put the Federal Government into play, and would have required us to operate under a legislative and administrative mechanism with approximately $6 million in the fund at that time.

Senator BAUCUS. I am going to address a different point. That is that one week out the administration left the impression with the American people that the company's plan was sufficient. But then, one week later, the administration reached a contrary, opposite conclusion; that is, not to use the magic word "federalize," but still the opposite conclusion that the company's actions were insufficient and that Federal involvement was necessary.

So I am asking you, what in the first instance led the administration to conclude that no Federal action was necessary; and second, one week later, a full two weeks after the spill, what led the administration to change its mind?

Mr. SKINNER. That assumes two facts in evidence that I would not assume. Number one, the Federal effort was significant from day one. There were probably, within several days, 300 or 400 or 500 Coast Guard and various government employees on the scene. Number two, Exxon probably had close to 500 to 1,000 people on the scene.

It became quite apparent that the magnitude of the problem, the necessary coordinating force, and the necessary cleanup effort was not being put into place as quickly as it should. It was on that basis that we suggested additional coordination and additional options must be considered because the ability to marshal and manage the resources committed by Exxon was not being put into place with the speed that the President wanted, and the control system that Exxon had put into place to coordinate in a very remote area hundreds of vessels and almost 1,000 people was not functioning as well.

That is not to ignore the enormity of the problem. By not being ready the first 5 hours, we were faced with—we meaning everybody—a massive, massive effort that, even under the best of circumstances, would have required months of effort.

Senator BAUCUS. I understand that, but the focus of this hearing primarily is to determine what went wrong so we can, hopefully, figure out what needs to be changed.

Mr. SKINNER. I think what went wrong is——

Senator BAUCUS. So I am asking again—I hear lots of different statements, frankly, Mr. Secretary. One is that after the first few hours, after the first 60 hours, after the first very short period of time, virtually nothing can be done. If that is the case, then the contingency was vitally, fatally flawed.

Mr. SKINNER. On a scale of 1 to 10, it was a zero.

Senator BAUCUS. And the administration is derelict in not making sure that the contingency was adequate.

More important than that, the administration left the impression one week out, contrary to what you are now saying, one week out, that the plans were proceeding ahead, that Exxon is doing a good job. That was the impression.

Mr. SKINNER. Well, that was the impression at that time. Exxon had made major commitments, and a week later——

Senator BAUCUS. But you are saying now that——

Mr. SKINNER. I said a week later, Senator, and I encourage you, when we visit, to go with me and visit the area personally. It gives an exposure to the area that I think explains the magnitude of the problem.

The coordination of an effort of that magnitude did not get into place soon enough, and it was on that basis that the President decided additional coordination was necessary, and additional options.

Senator BAUCUS. What is the administration's degree of confidence in the present plan; that is, with respect to the remaining cleanup?

Mr. SKINNER. We are cautiously optimistic. We are preparing contingency plans in case the massive effort that Exxon has committed to publicly and made to the Government does not reach fruition quickly. It is being monitored on a daily basis. If in fact there is an inability to put together a plan and put it into place and get it working, we will trigger contingency plans.

Senator BAUCUS. Has the administration given its stamp of approval? Yes or no? Does the administration think it is a good plan or not? I don't think it is really quite fair for the administration to say, well, yes, but, all kinds of contingencies, and this and that. That lets the administration off the hook, in my view. Either you think it is a good plan and it has the administration's stamp of approval, or it is not.

Mr. SKINNER. Well, we have approved the plan with a few exceptions. We have asked that it be expanded. Admiral Yost has personally reviewed the plan, made some corrections and changes and is satisfied, as late as 11:30 last night when I spoke to him, that the plan, if properly implemented and properly managed and controlled, will go a long way to restoring the environment this summer.

It is an ambitious, optimistic plan that is going to require Exxon, hopefully with support from the industry, to coordinate a very, very significant manpower-sensitive operation with hundreds of vessels, and that challenge is one we are going to monitor daily.

They have indicated they can do it. They have indicated they are putting the pieces in place to do it, and if we don't see progress, we will move to alternatives.

Senator BAUCUS. I am skeptical because they also indicated that the first plan was a good plan. They indicated that the first contingency plan was one where they could do it, and they did not. So I must say, I am still skeptical.

Mr. SKINNER. And I agree. I would say it is only a question of semantics, reasonably optimistic versus skeptical. It is a fine line. I think it is a real challenge. I hope Exxon is not underestimating the challenge. I think you are right.

Senator BAUCUS. Senator Chafee.

Senator CHAFEE. Thank you, Mr. Chairman.

Let me say that what I am going to concentrate on is looking to the future, how we avoid these mishaps.

In your testimony, you refer to the so-called VTS, the Vehicle Traffic Separation system, which is a radar-controlled type of system which is purely voluntary as opposed to the FAA. Whereby it is mandatory that the pilots follow the FAA, it is optional whether anybody wants to follow the VTS system.

Are you satisfied that the VTS system in Valdez was adequate?

Mr. SKINNER. I think it did what——

Senator CHAFEE. If Admiral Lusk wants to answer, obviously, that is fine.

Mr. SKINNER. I was going to turn it over to him, but I would say that I think, given the mission that it had, it was working. The question is, should the mission of that system be expanded as a result of what we have learned there? Admiral Lusk, you may want to comment on that.

Senator CHAFEE. I am interested in this. Go ahead, Admiral Lusk.

Admiral LUSK. Thank you, sir.

I think that semantics are probably very important here, sir. As we use the word "mandatory," the VTS system in Valdez was mandatory. It required participation by all the vessels that were going in and out of Valdez. That was mandatory.

Now, we have in the world somewhere around 130 VTS systems. There are none of them, to our knowledge, that are other than advisory. So this was a mandatory system that was advisory in nature, which is essentially the highest protocol that we would have in the 130——

Senator CHAFEE. You have to go slower for me. It is a mandatory system that is advisory?

Admiral LUSK. Sir, we have a number of VTS——

Senator CHAFEE. That is like my State that passed a mandatory seat belt law which is optional.

Mr. SKINNER. We ought to change that, too.

Senator CHAFEE. We are out to do that.

Admiral LUSK. We have VTS systems in the United States that are not mandatory, sir, where participation is voluntary. We have other VTS systems where participation is mandatory, but there are no systems in the world that I am aware of where you have anything other than an advisory system.

Senator CHAFEE. You mean it is mandatory to participate, to listen?

Admiral LUSK. That is correct, sir.

Senator CHAFEE. But you can ignore what you hear?

Admiral LUSK. Yes. The rationale that we have, sir, is that, unlike an aircraft, the moving situations that you get into with a ship are such that you simply cannot have—we have not figured out how to have—a controller in a remote area giving helm orders, giving rudder angle orders, to the ship. We are afraid that it simply would not work like it does in an aircraft.

Senator CHAFEE. Do you think this accident could have been averted if your folks in that VTS had warned the tanker or diverted it away from the reef? They must have watched on the scope and seen this about to happen boggle-eyed, weren't they?

Admiral LUSK. Well, sir, it is not quite like that. Keep in mind that the reason that we put the VTS system up there was not to control the area, not to give traffic advisory to the area where the accident happened. We put the VTS up there and the radars up there to control a very, very narrow area called Valdez Narrows which is further inland from where the accident happened.

The system had a two-part approach. There was the Valdez Narrows area all the way into Valdez, which was controlled by VTS. Outside of that, there was a traffic separation scheme, and in the area that was south of the Narrows. We relied upon a systems approach. One, we had a traffic separation scheme. Two, we had aids to navigation. We had lights and those kinds of things. Three, we had licensed masters and a requirement for a licensed pilot.

So when you got south of the Valdez Narrows area, sir, we did not depend on VTS, and as a result, there was no operating protocol that required our operator to keep his radar even pointed at the tanker when it was in the area where the accident occurred.

Senator CHAFEE. Let me follow this through. Secretary Skinner, I know you are going to come out with a report, you said in your statement, in a few weeks, as to the steps that you should be taking. Do you think that the Federal Government should automatically get involved with oil spills above X number of barrels?

Mr. SKINNER. I am going to hold. I think the industry has got to prove to the administration, to the States that they explore, and to the American people that they can come up with a contingency plan that will deal with this problem.

If the Federal Government is convinced, and the State is convinced that they can come up with a properly funded contingency plan to deal with a spill of this magnitude and are convinced they can put the pieces in place and do put the pieces in place, then that is the right way to do it. If there is any significant doubt that the industry can do that, then I think legislation automatically federalizing a major spill would probably be appropriate, because then you have control over it.

Senator CHAFEE. And who is the proper person from the Federal Government to go in?

Mr. SKINNER. The proper person? It requires a combined response.

Senator CHAFEE. Yes, but somebody has got to be in charge.

Mr. SKINNER. Well, right now the National Response Team and the Coast Guard share responsibilities for a response of this type. It has worked well. When I say it worked well, the coordination between various government agencies works well. They are not falling all over each other.

Senator CHAFEE. Where, in Alaska?

Mr. SKINNER. In Alaska. They are working hand-in-glove.

Senator CHAFEE. But there is a man in charge, Admiral Yost.

Mr. SKINNER. That very well may be, and it may be that the Coast Guard may be the organization under Federal law that has that responsibility. I would suggest that that is probably the case. But we also have to have a mechanism that allows other agencies such as NOAA, EPA, Interior, Agriculture, and maybe other national scientific organizations to cooperate in that effort.

Senator CHAFEE. I don't think anybody is saying that when you get one person that everybody else is banned from participating, but I believe you have got to have somebody with responsibility and accountability.

My time is up, I see, Mr. Chairman.

Senator BAUCUS. Senator Lieberman?

Senator LIEBERMAN. Thank you, Mr. Chairman.

If it has not been indicated for the record before this time, I just left Senator Murkowski on the floor where an amendment of his is now being considered, and he particularly asked me to indicate for the record and to express his apologies to Governor Cowper for the fact that he is not here at this point, but he is going to get back as soon as he can.

Secretary Skinner, if the information I received is correct that the National Response Team did not officially come together until the following Tuesday, why didn't it? I guess it is a two-part question: Is that correct, and if so, why didn't it come together until 4 days after this spill occurred?

Mr. SKINNER. Number one, I do not believe it is correct. Mr. Reilly is representative, as chairman of the National Response Team. So maybe I will ask Mr. Reilly to answer that question.

Senator LIEBERMAN. Fine.

Mr. REILLY. Senator, the National Response Team was already monitoring the spill the day of the spill, I believe, and was involved in telephone conference calls regularly thereafter.

The first time they convened as a group may have been 4 days later, but they were very knowledgeable and already beginning to size up the problem, analyze the adequacy of the response to it, prepare to respond to it, and brief me and other people in the administration on it.

Senator LIEBERMAN. Are you convinced that, if you had it to do over again, would you have brought them together in person right away? I am thinking of the example of an international diplomatic or military emergency. The National Security Council and comparable groups, NSA, come together immediately for full consideration.

Mr. REILLY. It is not clear to me what that would have contributed, frankly. I recall asking, when we were in Alaska, what Alaskans believed about the need for additional resources or a Federal response, and quite specifically, what is it that the Federal Govern-

ment would do if it suddenly were to come in and supplant Exxon's own response.

I can recall very clearly, the two things most emphasized were to get that oil off the tanker, which was very precariously exposed on Bligh Reef, the remaining oil, which was four times or five times more than what was in the water, and to protect the fish hatcheries.

That is, and I think we concluded properly, given the choices that existed, that was the best, that was the most appropriate, and that had to be the highest priority at that time. It was the highest priority.

While we were in Alaska, we talked to a number of State and local officials. We talked to fisherman and a lot of people. Nobody urged federalization of the effort at that time, based upon the attention to the two priority needs.

Senator LIEBERMAN. Do you think there was a full enough group involved in those early phone conversations before the Tuesday meeting and then at the Tuesday meeting? What I am thinking of here is the fact that—and I know that you are sensitive to this, based on your own background as an environmentalist and a conservationist—that we are dealing here with 80 to 90 percent of the land affected by this moving oil slick some are federally owned—parks, national parks, forests, wildlife refugees. I have heard that some of the Federal trustees of those lands were not adequately involved early enough to prepare to defend those lands. Is that accurate?

Mr. REILLY. Well, there are 14 Federal agencies represented on the National Response Team. I think all the trustee agencies are included, so they were involved.

Senator LIEBERMAN. They were involved right from the beginning?

Mr. REILLY. Yes, sir.

Senator LIEBERMAN. Secretary Skinner, let me come back to you. I indicated in my opening statement that there is an extraordinary discrepancy between the amount of money available in the oil spill fund, which at that point was about $6.8 million, and more than $8 billion in the Superfund for hazardous waste cleanups.

Did the lack of available cash in the oil spill fund play a part in the Federal Government's decision not to immediately become involved in the cleanup more aggressively?

Mr. REILLY. I don't think it did, because the President was committed to doing whatever he could and to worry about it later. I think it would have been a problem.

The major feeling was that Exxon, a multi-billion-dollar corporation, with the full support of the industry, who were also responsible for this problem, had made a total commitment to marshal millions of dollars in resources and were attempting to do so on a regular basis. They possessed the expertise, the contracting capability, the claims processing capability, and the technical expertise to deal with the problem, as I said, that is already out of the bottle, and it is going to take a long time to sustain.

It was on that basis that we decided that we would not take it over, that we would supervise and have backup resources available in case their plans did not become reality, and the skepticism that

a number of us have reached—hopefully, it will not, but if it were—to have a backup plan. But that is clearly, in the opinion of everybody, the way it should go.

You will hear from Governor Cowper, but he and I spoke about the, quote, federalization, and I don't want to put words in his mouth, but I think he felt that additional resources should be placed in there, and it should be coordinated better; once those steps were put into place, I don't think there was anyone asking for a federalization. I think everyone said, let's get the resources in there as soon as possible and let's get them into place.

That has proven harder for the industry and Exxon to do than they had anticipated. So we now have to prepare backup plans to make sure that during the five sensitive months that we have to clean up the Sound and further south, we make a maximum effort to do so.

Senator LIEBERMAN. Mr. Secretary, based on your earlier statements this morning that you doubt whether the oil industry even today knows how to deal with an oil slick of this kind, don't you think that the original confidence that you had in Exxon to handle this was misplaced?

Mr. SKINNER. Well, I think we are disappointed. Let me put it another way. We are disappointed that, with all the resources and time and effort, a more productive effort did not occur. Yes, we are very disappointed.

On the other hand, we are picking up oil. At the point it starts flowing, because of weather in the first 2 or 3 days, which was really contingency planning that was not in place, the problem was so widespread and of such a magnitude that picking it up off the water required a much bigger and more comprehensive effort than they were able to marshal, and that is with 100-and-some ships in the water. I mean, it is maybe 1,000 ships we are talking about.

Senator LIEBERMAN. Thank you. My time is up.

Senator BAUCUS. Senator Reid?

Senator REID. Thank you, Mr. Chairman.

Mr. Skinner, I have some questions that I will submit to you in writing, but I do have one area that I want to pursue.

Mr. Skinner, as you know, because we have talked on a number of occasions about this, people in Nevada are concerned about another type of potential disaster, and that is the storage of nuclear waste. One of the reasons that people in Nevada have been concerned about the nuclear waste situation is that it has to be brought there some way, just like this oil; it has to be taken from Alaska some way.

Now, Secretary Skinner, you indicated the last time you appeared before a committee in which I participated that looking into the transportation of nuclear waste was going to be one of your priorities. I think based on the situation that we have had here in Alaska, transporting crude oil, that the people of this country should just be scared to death about the transportation of nuclear waste, based upon the fact that we have no contingency plans; those plans we do have are in the developmental stage.

In short, I would hope that this would be a lesson, this tragedy that we have had in Alaska would be a lesson for us that are concerned about the transportation of nuclear waste, because if we

cannot transport crude oil any better than we do, I think to transport 70,000 tons of nuclear waste that is now stored in nuclear generating facilities around this country to Nevada or any other place should give us all concern.

Mr. SKINNER. Senator, you and I have talked about this. I am delighted to report that I have appointed a young man, Travis Duncan, to head the Special Programs Administration in my office. I can assure you he is one of the most aggressive, bright young people I have met, and I know, having watched him now for a couple of weeks, that he is going to have a very comprehensive program to deal with that problem because he is not someone who lets grass grow under his feet. So I think we will have some answers for you before too long.

Senator REID. Thank you, Mr. Chairman.

Senator BAUCUS. Thank you, Senator.

Senator Murkowski.

Senator MURKOWSKI. I just have a very brief question that I know has been covered partially, and it has to do with how one would view the direct responsibility for the traffic control associated with the departure lanes after the tankers go through the Narrows from the time they drop the pilot off at Potato Point and there is a Coast Guard monitoring radar, and I understand there are two civilians that are comparable to air traffic controllers that do the monitoring.

It was more than an ordinary happenchance that night when the ship observed ice coming on at Columbia Glacier on its radar, was in an outbound lane going out, theoretically, to Prince William Sound, and then, to avoid the ice, they asked for permission—this is the ship—to move to the inbound lane to avoid the ice.

The permission was granted. I believe that there are tapes of the conversations that occurred. The ship moved over to the inbound lane to avoid the ice, and that was the last contact between the ship and radar station.

Inasmuch as that change of course indicated something other than an ordinary departure, what is the responsibility of the radar station and those manning it to advise the ship that they have cleared the ice and to return to the outbound lane, which is the ordinary departure procedure?

Mr. SKINNER. I might ask Admiral Lusk to deal with that.

I would just say that the basic presumption that we make is that a pilot is in charge, that a captain is in charge with proper pilotage, that knows the area and knows what all these routes are supposed to be.

Senator MURKOWSKI. I understand that.

Mr. SKINNER. So we place, under our system of navigation, we place primary responsibility there.

On the specific question of advising once you return to the other lane, I will ask Admiral Lusk to deal with that.

Admiral LUSK. First of all, with regard to the ice, our radar will not pick up most of the ice down there. Now, the ship is required—and this is part of our systems approach—to have two operative radars before it leaves Valdez, and each one of them is just as good as ours. So they can pick up ice better than we can. There is no

way we can tell him whether he is clear of the ice. He picks up the ice and asks permission to leave.

It is basically an approbation, and it is not an uncommon occurrence, Senator. During this time of the year in the spring, many, many tankers do that. It is a routine thing. They say, we are going to shift over. Even before they see the ice sometimes, they want to shift over to the northbound lane.

So our people did not see fit to bring that area up on their scope. Now, in fact they could have. If they had brought it up on the scope, they would have been right at the outer limits of good target reproduction, but they could have brought it up on the scope.

Senator MURKOWSKI. But, nevertheless, with regard to policy, the fact that the ship left one lane for another, wasn't the ship obligated to return to the outbound lane once it had cleared the ice?

Admiral LUSK. Our people did not specifically tell him to report back in; that is correct, sir.

Senator MURKOWSKI. That is policy? There is no requirement?

Admiral LUSK. He is supposed to be in the proper lane throughout the transit unless he has permission to leave it, and he said he wanted to leave it so that he could avoid icy bits from the Columbia Glacier.

Senator MURKOWSKI. He was leaving it permanently, then, as opposed to leaving it and going back into the outbound lane?

Admiral LUSK. Without having been there, I don't know what was in the mind of our operator, but I would have suggested that he did not think it was a permanent departure.

Mr. SKINNER. We will pursue that a little further.

Senator BAUCUS. Mr. Secretary, I am still a little confused over why the administration took 2 weeks to get involved in this.

First I hear you saying that to some degree your assessment was that Exxon and Alyeska were doing a pretty good job. At another point I hear you saying that there is a legal impediment. Which was it? Was it a combination? To what degree was it one rather than the other, or both?

Mr. SKINNER. First of all, the Federal Government was involved from the moment it happened, when it was reported to them. Resources began to pour into Alaska. I was there 4 days later and saw military and civilian government resources all over the place. I saw a number of people, the Response Team members, and I met with them up there.

So, therefore, the question is the quantity and type of Federal response. Number one, the Government was involved; number two, Exxon was involved. It was felt that Exxon had made a major commitment, was out contracting for hundreds of vessels and had actually rented a building to house 300 to 400 people, and they would be able to put into place not only the people and the equipment to contain it as best can be done at that late date, but that that would be the quickest, most expeditious way to put qualified people on the scene in a coordinated way to deal with the problem.

The coordination and the time it took to put those resources into the field in Valdez and in Cordova was what came up significantly short.

Senator BAUCUS. You mentioned a legal impediment. What is all that about?

Mr. SKINNER. There is no legal impediment other than——

Senator BAUCUS. That seems to contradict the implication of earlier, greater Federal involvement.

Mr. SKINNER. The only thing is that if you take over——

Senator BAUCUS. There is no legal impediment, then?

Mr. SKINNER. The legal impediment——

Senator BAUCUS. I heard earlier that there was.

Mr. SKINNER. No, I said the legal impediment, which we did not consider to be a major factor, is that there is $6 million in the fund and we are going to spend appropriated funds out of a fund at the rate of several million dollars.

But we decided we would work that out later with the help of the House and the Senate. The real decision was that, if we took it over, it would let Exxon off the hook on dealing with this problem. Later, we would have to go back and get the same resources and people and time that they had already contracted for and get them contracted for by the Federal Government and get them into place. The quickest way was to let Exxon's team that had already undertaken that responsibility put those resources into place.

Senator BAUCUS. So that this committee has a better idea of how to redraft legislation, could you please provide to this committee a memorandum outlining the legal reasons why the government thought that its involvement would, quote, let the company off the hook?

Mr. SKINNER. Yes, we would be glad to answer that.

Mr. SKINNER. When we say "let them off the hook," I do not mean from a legal basis 10 years down the road. I am talking about on an immediate basis. You know, the next day, we take it over, Exxon says, "Fine, I'll see you when you send me a bill. By the way, I am going to call these 100 vessel operators and these pumps from all over the country we are bringing in, and we are going to tell you, forget it; go see the Federal Government."

Senator BAUCUS. All right.

I would also like you to address very briefly the statements made by Exxon that the government was confused, it is scattered, and all these various agencies cannot make up their minds, and it is the government's fault for all this delay; whereas Exxon says that it, Exxon, was there and ready and willing to go in and clean it up.

Mr. SKINNER. I will be glad to.

First of all, I don't think anybody was ready to deal with a spill of this magnitude. I don't think anybody, whether it be the State of Alaska, the Federal Government, or Exxon or the oil industry, was ready and had plans in place to deal with a spill of this magnitude. They did not have the technical ability, and we did not know how to clean it off the rocks and what is the proper way to do it.

We are still experimenting with methods to do it, and there are three or four methods under exploration. All of the methods of picking it up off the water, burning it, dispersing it, et cetera, were still controversial.

The environmentalists have a right to make a decision on what methods should be used, but the environmentalists had not gotten together in those conservation groups and said, "If a spill of this magnitude happens, here is what you are supposed to do here; here

is what you are supposed to do here; here are the three approved methods; choose one." None of that took place.

So then when somebody says let's do this, the environmentalists, wanting to make sure that that is proper in the long run for the environment, want time to analyze that. All of that should have been done before the spill ever occurred as part of a contingency plan. Then quick responses and quick decisions would have been made.

Senator BAUCUS. All right. You are known as a man who is candid. What went wrong? In cutting through all the formality, cutting through everybody trying to protect everybody else and trying to put the best light on everything, what went wrong here?

Mr. SKINNER. Everybody assumed this would never happen.

Senator BAUCUS. If that is the case, then the contingency plan was a fraud, because the contingency plan assumed one contingency, a 200,000-barrel spill, and expected it to deal with a 200,000-barrel spill in Prince William Sound.

Mr. SKINNER. Senator, I do not understand. I do not understand how you can have a contingency plan that does not deal with a container breaking up, whether it be bad weather or going up on the rocks, that contains 240,000 gallons or even more, and not have a plan to deal with it.

Senator BAUCUS. Well, then the plan was not worth the paper it is written on.

Last night I was going through their plan. I will tell you what struck me. This is one volume of the plan. There are only eight or nine pages dealing with a 200,000-barrel spill in this whole volume. The rest of it is just maps. It is photographs. Have you seen the plan, have you gone through the plan?

Mr. SKINNER. Yes, I have.

Senator BAUCUS. You will see it is all photographs. There is virtually nothing here in the operative part, the section 300 here, about dealing with a 200,000-barrel spill. I just cannot for the life of me understand how the government, how Exxon, how Alyeska could, in good faith, put out a document like that.

Mr. SKINNER. And also, I would say, how did the State of Alaska—they approved that plan.

Senator BAUCUS. The State of Alaska at that time, that is correct.

Mr. SKINNER. I think, as long as we go that far, if the plan is that inadequate, why didn't people in the Federal Government recognize and point out to Alaska and Alyeska that the plan was totally inadequate?

So I think, while there was no formal Federal responsibility for approval of the plan, if it is that inadequate, I think everybody has a little to blame. But it should never have been approved.

What happened, Senator, I think, also—and this is not an excuse—when the plan was developed, we were dealing with smaller vessels. We now move to giant tankers. We never updated the program and plan for giant tankers.

Number two, after 15 years or 20 years, they assumed that it was not going to happen.

Senator BAUCUS. In fairness, I have used my time.

Let me turn to other Senators and see if they have more questions.

Senator Chafee?

Senator CHAFEE. Mr. Chairman, we have to move on because I know the Governor has to leave.

I just want to say, Mr. Skinner, that when you come up with your recommendations, these are the things I am interested in: At what stage should the Federal Government get involved in an oil spill? Some limitation in size?

Secondly, who from the Federal Government should be in charge? I am not for this coordinated approach. Somebody has got to be in charge.

Thirdly, I hope you will deal with the State preemption situation. We have got to fish or cut bait on that situation around here, particularly as we get into international agreements. It is my understanding that the international people will not countenance going into agreements with the United States where there is State preemption, and I am anxious to hear from the Federal Government on that. This applies to your input, too, Mr. Reilly.

Fourth, dealing with the licenses of skippers, masters of vessels, it is not enough to give them a 5-year license and say we will review it at the end of the 5 years, when he is running up drunk driving charges. Somehow there has to be a method of review.

Also, I would be interested in the answers to the questions that were posed here about, is it really feasible for a tanker to carry booms on it to contain, and the small boats that go with it? When you have a total of 35 men on a tanker, do they have crew enough to man the small boats, and is this practical? I would be interested in hearing the results of your study on that with the Coast Guard. That is what I am interested in in this report when you come forward with it.

Mr. SKINNER. I am sure all those areas will be covered. Mr. Reilly and his team are going to be responsible, as the head this year of the National Response Team, to prepare that.

Senator BAUCUS. Senator Lieberman.

Senator LIEBERMAN. Thank you, Mr. Chairman.

I guess I would add to Senator Chafee's request of items to be covered this concern that I have as I compare the oil spill laws to the hazardous waste cleanup laws. It does not appear to me that there is—in this case, if Exxon, for whatever the reason, had decided that it did not have the equipment, did not want to incur the liability, wasn't going to get involved in a cleanup, I do not believe that the government had clear authority to order Exxon to do that as we do in a hazardous waste case. Unless you have a comment on it now, I would like you to add that to the issues that you consider.

Also in hazardous waste, as you know, if a company does not act to clean up, the Federal Government can go in and charge treble the costs. It is clear to me that we do not have that authority here. We could do it and then have to go to court to make that claim, and I think that puts us at a disadvantage.

Just a question for the vice commandant, if I may. It seems to me that the presence of the Coast Guard here in this matter is important in that it makes the point that this is a matter of national defense. We are not defending people in the normal national secu-

rity sense, but we are defending our natural resources and ultimately can defend people as well.

When our military carries out its function to do that, there are regular training exercises. There are troops in Europe regularly to carry out exercises to get ready to defend our national security.

Is there any of that in the Coast Guard's work in dealing with oil spills of this kind? Are there regular training exercises that go on?

Admiral LUSK. Oh, yes, sir. We very definitely have training exercise. We have all our captains in every port looking to the best utilization of every piece of equipment that is available.

The difficulty we have, sir, is not figuring out how to use the equipment properly. The difficulty is, we have no authority to mandate that there be any equipment. And so, when you are at a place like Valdez, our on-scene commanders and the like, as they review these plans, and as they take charge of the Federal group that is responding, they can make sure that the equipment that is available is used. But in the preceding months before the spill, we cannot tell somebody to provide equipment.

Senator LIEBERMAN. Right.

Admiral LUSK. Now, in the Coast Guard, with whatever resources we have—and we don't have many, we do buy booms and what have you, and we do stockpile them, and we moved all of those stockpiled booms and all the people that know how to use them up there to Valdez.

Senator LIEBERMAN. I take it that you would like the authority to order the private parties involved here to have equipment that you think would measure up to the potential risk.

Admiral LUSK. If we are going to respond in some fashion that assures that there is an adequate amount of resources available, then someone is going to have to have the authority.

Mr. SKINNER. Let me amplify on that. Whoever is going to have responsibility has got to have the ability to mandate and require contingency plans, equipment, people in place or ready reserves, so to speak, prior to the incident. There is no sense in giving someone the responsibility after an event occurs if you don't give him the authority to set up the program to deal with it if it occurs. So they go hand in glove.

Senator LIEBERMAN. The other part of this is the equipment that the Coast Guard itself has available. I have a particular natural sensitivity to the potential for an accident of this kind on Long Island Sound. We have more than 3 billion gallons of oil that come into the Sound every year. I was told a while ago that for some period of time the Coast Guard used to board and inspect most if not all of the commercial ships coming into the Sound, but because of financial constraints you are not able to do that now. I don't know whether you are in a position to answer that specific question.

But it leads me to the general question: I take it that you do not feel you have enough equipment provided to you, enough resources to do the job that we are asking you to do.

Admiral LUSK. We have nowhere near enough equipment to provide for all of these things. We can send what we have to areas and help, sir, and as a general rule, experience has shown that there is

enough equipment. The plan has worked for the past 15 years quite well. We have not had one of these things, nothing of this size.

The maximum credible spill on that occasion was over three times what was lost. You figure that tanker almost sank.

Senator LIEBERMAN. Right.

Admiral LUSK. We were very doubtful that we could ever get it off the rocks. So we thought for a long time there that we were going to lose the entire 50 million gallons, and so our effort was and quite successfully, to try to take 40 million of those gallons off.

The problem that we have, though, is that this was something that was totally unprepared for, totally unplanned for. And suppose it had been in bad weather. When we speak of someone saying, "Let's worry about a plan that covers everything," suppose the 70-mile-an-hour wind that the Senator mentioned that came 2 days after the spill had come during the spill? We would have lost 50 million gallons, lost the ship, and we would have had a real mess up there.

Senator LIEBERMAN. All right, thank you.

Mr. SKINNER. We already have a real mess. We would have had a——

Senator CHAFEE. Yes, I think you can classify this as a real mess.

Mr. SKINNER. Yes. I think he meant to say even a greater mess.

Senator CHAFEE. Mr. Chairman, I know the Governor of Alaska has a time limit, and I hope we can get to him pretty soon.

Senator BAUCUS. We will.

I think the law does require the equipment to be there, though. That is in the law.

Mr. SKINNER. We are going to answer that.

Senator BAUCUS. It is in the law.

Admiral LUSK. In the TAPS law?

Senator BAUCUS. Yes.

Admiral LUSK. Oh, yes. I was talking about——

Senator BAUCUS. It is in the Clean Water Act. The provisions—in fact, I have it right here. It is, if I can get the citation here, it is at section 311(c) of the Clean Water Act.

Admiral LUSK. It requires equipment that is in the plan, but it does not mandate how comprehensive the plan has to be. In other words, the maximum credible spill in the plan is not mandated.

Senator BAUCUS. It does require the equipment in the plan, that is right.

Mr. SKINNER. If we disagree with the plan, we have no way to mandate a change in the plan if it is approved by the State and Alyeska.

Senator BAUCUS. No, but the government has responsibility to be sure that an adequate plan is in place.

Mr. SKINNER. Right.

Senator BAUCUS. If the equipment is not in the plan, how can it be adequate?

Admiral LUSK. We have the responsibility of making sure that the equipment that is in the plan is in place.

Senator BAUCUS. In addition, that there is an adequate plan.

Admiral LUSK. No, sir. There is no Federal requirement that we approve the plan, and in fact we did not approve the plan in Prince William Sound.

Mr. SKINNER. Rather than getting into a legal discussion, why don't we respond to your question in writing as to what our lawyers perceive it is?

Senator BAUCUS. All right.

We are running out of time.

Thank you all very much for your testimony.

Senator MURKOWSKI. Mr. Chairman, I just wanted to highlight one point that has been brought up numerous times, and I will be very, very brief.

The question of Federal presence has been referred to, and having been with the Secretary and Administrator Reilly as well as Admiral Yost at that time, as Admiral Lusk pointed out, the priority was the concern that we were going to lose that ship, and so the immediate realization that the oil had gone in 3 to 5 hours after that second-day windstorm made the immediate direction of everybody's efforts to get the oil out of that ship as quickly as possible, and the State and all other parties—that was the priority.

Then they moved down to the realization that the oil was gone. They got the oil out of the ship. The problem was cleaning it up, and that is when the Federal presence came in to assist, because it became apparent that there were not adequate facilities, so the military came in with berthing barges, which are up there now; the Soviets are coming with a ship Saturday; there are dredges coming up from the Corps of Engineers, on and on and on.

That is a time lag, and it is really understandable, if you will, in that sense because what you would have put in were people a little earlier, but nevertheless, the priority was to get the oil out of the tanker.

Mr. SKINNER. You would not have put 4,000 people on the beaches until the weather and the time is right to do that. You would have put maybe 300 or 400 vessels instead of 100. Maybe 400 skimmers manned by 800 people, with miles and miles of boom might have been able to contain it. But given some bad weather—you have been there—the booms break immediately.

There is no technology available to contain a spill of that magnitude. Frankly, I have some serious reservations as to whether there is any technology available to stop a spill of 10 million gallons once it flows out of the ship in 4 hours.

Senator BAUCUS. Thank you.

I would like to read the section, though, for the record.

Mr. SKINNER. I knew you were going to go back to it.

Senator BAUCUS. It is section 311[c] of the Clean Water Act, and it says in part—I am not going to read the whole statute—essentially that within 60 days after the effective date of this section—that is, effective when it is in the law—"The President shall publish a National Contingency Plan for the removal of oil and hazardous substances," et cetera, et cetera.

It says, "Such national contingency plan . . . shall include but not be limited to"—and then it goes to subsection C—

> Establishment or designation of a strike force consisting of personnel who shall be trained, prepared, and available to provide the necessary services to carry out the plan, including the establishment at major ports to be determined by the President of emergency task forces of trained personnel, adequate oil and hazardous substance

pollution control equipment and materiel, and a detailed oil and hazardous substance pollution prevention and removal plan.

This overrides the——

Admiral LUSK. I can counter, but perhaps I had better not.

Senator BAUCUS. Sorry?

Admiral LUSK. I can counter, but perhaps I had better not.

Senator BAUCUS. Well, maybe you had better.

Admiral LUSK. All right.

Certainly we have done everything that that has said. We do have strike forces, we do have them centrally located, and we do have equipment, and they do have enough equipment and enough people to carry out the plan.

The problem is the plan that we are talking about there is the national plan. Now, that cite also recognizes, as does the national plan, that there are going to be local plans. In this case there is a State plan. That cite does not require, in our interpretation, that we and the national strike force have enough equipment and enough people to carry out in this case what the State of Alaska requires.

Senator BAUCUS. How do you get that? This is a Federal statute, and it provides what the Federal plan should contain.

Admiral LUSK. But we feel that we do have enough——

Senator Baucus. It does not say anything about the State.

Admiral LUSK. No, sir, and we do feel that we have enough to carry out what the Federal plan is. But the Federal plan puts us in a coordinating role, sir, not in a cleanup role.

Senator BAUCUS. That is not what this says.

All right, thank you very much.

Our next witness is the Honorable Governor of the State of Alaska, Steve Cowper.

Governor Cowper, you have been very patient. Thank you very much for taking the long trip to come and give us your views, your impressions, and your recommendations. We look forward to what you have to say. Just go ahead.

STATEMENT OF HON. STEVE COWPER, GOVERNOR OF THE STATE OF ALASKA

Governor COWPER. Thank you, Mr. Chairman.

Initially, I would like to observe that the time before this committee is probably more important than making an airline, so I would like to make whatever time is necessary available to you.

First off, I would like to thank the subcommittee for its immediate attention to this very important matter. It is something that needs immediate attention, and I am happy that the subcommittee has chosen to do so.

I have a very brief statement, actually almost an outline that I would like to present to the subcommittee and ask that it be included in the record.

Senator BAUCUS. Without objection.

Governor COWPER. There are a couple of parts to this puzzle that I want to leave until later. Our technical people are in the field. It is a little difficult to be reflective when you are ankle-deep in

crude, and we would like about 45 days to submit recommendations as to how to prevent this type of incident ever happening again.

Secondly, there are people, real people, who are affected by this spill, not the least of whom are our fishermen in that area. You and I, Mr. Chairman, can talk about policy, but they are losing their livelihoods.

We do not want the people of Alaska and the fishermen of Alaska to have to resort to Federal litigation against the Exxon Corporation which may well stretch into the next century. We would like leave to make recommendations as to legislation that would make it easier for them to recover their proven damages. That, also, I would like to submit at a later time.

Mr. Chairman, I would like to specifically recommend some Federal steps to address an oil spill of this type once it happens. It is clear to me that you cannot treat a spill this large in the same way that you treat a spill in the harbor. As it turns out, we actually had a spill in Valdez Harbor a few weeks before this incident. It was about 1,500 barrels. It was cleaned up expediently and well done.

But a spill of this magnitude has to be treated in a completely different way than a relatively small spill in a harbor, and I believe that goes to Senator Chafee's question earlier.

In my opinion, number one, there needs to be somebody in charge of that spill immediately. I believe that the entity that is best suited to be in charge of that spill is the U.S. Coast Guard. They ought to be vested with the power and authority to clean up that spill immediately.

Let me refer to some of our actual on-site experience which leads me to that conclusion. When the spill took place, the first reaction was, well, Alyeska is in charge of this; let's wait to see what they are going to do. We waited and waited and waited and waited.

Then we asked the Coast Guard to take over, informally, and the Coast Guard said, Well, we don't want to take it over now because we are worried about the transfer of liability from Exxon to us, and so we want to see how the industry takes care of that spill. And so we waited some more.

And then after that, I asked the President for a declaration of Federal emergency so that somebody would be designated to be in charge of this spill. I conveyed that message to the President on the Monday following the spill. As if by magic, that night, Exxon and the State of Alaska and the Coast Guard got together and put together a command structure that seemed to be fairly workable. At least it seemed to be better than a new team, a new bureaucracy moving into the area which would have to be briefed on the situation and would result in more delay. So we thought that that would work.

As it turned out, it did not, in terms of the performance. Once again, we asked the Coast Guard to take over, and they agreed to do so. Admiral Yost's presence on the site is a real advantage in terms of the cleanup.

But there ought to be a clear line of authority. It should be a military type of command structure, in our opinion. It almost should be like a limited martial law situation where the Coast Guard can, in effect, commandeer the equipment and trained per-

sonnel necessary to treat a spill like this. Otherwise, it is just going to get out of hand.

There ought also to be a method through which equipment can be obtained without having to go through the usual government procurement methods. That has been a problem with the Coast Guard takeover and our takeover, too, for that matter. The Coast Guard has to go through a number of elaborate procurement regulations to get equipment on the site, so they have to go to Exxon and say, Look, we need this kind of equipment on site; will you guys please make sure that it gets there? It didn't work very well.

Secondly, we think that all tankers going into that area and in fact into any coastal area of the United States ought to have on board the type of equipment that would allow an immediate response to a spill of this nature, specifically, large booms, 36- and 42-inch booms. You would also need launches of the type—actually, 25-foot Zodiak is perfect—that would be available to deploy that containment equipment.

And it also ought to have skimming equipment on board, in my opinion. It might not work, but it is possible that it would be able to—that that equipment, if properly deployed, might be able to hold the spill, at least for a while.

Thirdly, it is clear that there should be an up-to-date inventory of equipment, of trained personnel, of material. Where is it? How much does it cost? How quickly can you get it there? How can you get it there? These are transportation mechanisms.

Here is why we think we need that. We were on site, I was on site on the day of the spill. I was actually on board the vessel, and the oil was collected in a large spot which was about 32 square miles at the time. We thought that was a lot. In retrospect, it seemed pretty compact. It was 8 miles by 4 miles.

We were relying, everybody at that time was relying on anecdotal stories as to where equipment was located. Nobody knew where it was. We were on the deck of the ship saying, Isn't there somebody in Puget Sound who has this type of equipment? Well, I don't know; I thought it was somebody from Kenai who had it. Nobody knew where the material was.

So we ought to have a computerized inventory of that. It would be relatively easy to do. We also ought to get some commitment on price so that the private contractors who have that type of equipment available don't hold you up when the time comes to use it.

Now, lastly, there should be some research done that is site-specific. It would relate to tanker traffic, and it also should relate to offshore platforms. Let me give you some example of what I am talking about.

In the middle of all of this, a Canadian scientist appeared and said he had done research on North Slope crude and that in fact it developed that it did not break up in cold water, a completely different type of response than you would expect from other types of crude in warmer water. In other words, it was hard to respond because you didn't know what was going to work.

Secondly, there were a number of suggestions made that we should use chemical dispersants. After the spill, it became necessary to do tests on them to see whether they would work or not. Mr. Chairman, I submit that it is a little late for that.

It developed that the types of dispersants that were on hand did not work in calm water, which we had for the first couple of days. Some of the dispersants are very, very toxic to marine life. They should not be used in sensitive areas. But the types of dispersants had not been sorted out at the time.

When this comes again, it will not come in the same context. Something else will happen. There will be a blowout in an offshore platform or some similar type of situation, and I think that we need to be prepared for a Federal response that is organized, in which there is a clear command structure and where we know for dead certain where the necessary equipment is and the necessary personnel that we need and where the materials are, because the key to containing a spill of this magnitude is getting the appropriate equipment and personnel on-site immediately. I think that all of those items should be contained in Federal legislation when you consider it.

We would like the opportunity later, as I mentioned, to comment on how to prevent this. Once again, we would urge attention to the processes there as they relate to the people who are personally affected by this oil spill, whose livelihoods will be affected.

Thank you, Mr. Chairman.

Senator BAUCUS. Thank you, Governor, very much.

I just have one question. First, I think you have a good idea. I think the depth and the comprehensive nature of the idea you have is a good one; that is, inventory and real-time data and dealing with pricing, et cetera, is an excellent one.

My question really comes down to how are we going to make sure that something like this is in fact real? That is, we can change the statute, we can provide for all of this in the statute. But I can just foresee another day on down the road, and, oh, my gosh, it was in the statute, but again, virtually the same problems occur.

I am wondering, in your answer, if you could address whether significant liability on a company, significantly additional liability than is currently provided for in the law, would be an incentive for a company to in fact have the kind of plan that you are outlining.

Governor COWPER. Mr. Chairman, it might, but I think the Federal Government ought to be in charge of this. I think it is a mistake to leave the industry in charge of responding to——

Senator BAUCUS. I am assuming the Federal Government is in charge, but I am just not sure the Federal Government can respond that quickly, either, unless we have continued drills, practice responses on, say, a 6-month basis, something like that.

Governor COWPER. Well, I think that has to be done, Mr. Chairman, and of course the question then arises as to whether the Federal Government, 2 or 3 or 4 years from now, is going to be willing to put up the money for that kind of response capability. You have to have people in place who can respond very quickly, and they have to have training drills, just like a fire department. If there is no fire, people get rusty. You have to have drills.

You have to have people who are going around to the suppliers of oil spill equipment and make sure that it is on hand, that they actually have what they claim that they have, because that is what the industry does. That is what Exxon does. I mean, they drill—they are in the business of looking for oil. They are not in the busi-

ness of responding to oil spills. And so what they really do, they have a few people within their own company, but they just contract out for the equipment that they use.

There is no reason to depend on a company like Exxon or any oil company's ability to administer, to take charge of a cleanup effort like this any more. We are lucky in that respect that it was Exxon. It could have been a small company, it could have been a tanker company, one of those one-vessel things that just kind of disappear in the night.

There are, by the way, some Liberian tankers running in and out of Valdez.

Senator BAUCUS. I understand that the initial company response—jets flew up from Houston to look over everything—was more in the nature to try to figure out how to transfer the oil from the tanker into another tanker and looking more into production problems and transportation problems rather than containment and environmental protection problems. Is that correct or not?

Governor COWPER. I believe that is correct, Mr. Chairman, but in fairness, there was a real danger of that tanker either breaking up or capsizing, and everybody recognized the necessity of trans-shipping that oil and getting it off the *Exxon Valdez* and into some other tanker. That was done sooner or later, more later than sooner, but it was accomplished.

Senator BAUCUS. Thank you.

Senator Lautenberg.

Senator LAUTENBERG. Mr. Chairman, I would bypass my turn to——

Senator BAUCUS. I am sorry. I bypassed our ranking member here.

Senator LAUTENBERG. I defer to Senator Chafee.

Senator CHAFEE. Thank you, Mr. Chairman.

Governor, it seems to me that a very important point has been made here today that I was not familiar with and puts this somewhat in perspective, not excusing anybody, but the fact that the energies were concentrated on this vessel, keeping it from breaking up, trying to contain the—now, let's see, 240,000 barrels that came out, so how many were left on on the vessel?

Governor COWPER. There were almost a million barrels on board.

Senator CHAFEE. So three times as much was left on board as had escaped, so, obviously, you wanted to concentrate your energies on trying to keep that three-quarters that was left in there from spilling. I am glad you made that point.

Secondly, I certainly agree with you on some individual being in charge. The Coast Guard does seem to be the people with competence. They are disciplined. I think your points about their ability to procure things without going to competitive bidding and advertising for 30 days, they must have some kind of emergency procedure to buy equipment, but if they don't, they ought to have, and that is one thing that we will remember is in the law.

You made some other recommendations in your testimony that I think are good. I must say, the thing that bothers me, everybody has said, once the genie was out of the bottle, meaning when the 3 days passed, or really a couple of days, that it was just a matter of

trying to contain damage control as opposed to really licking the problem right in the beginning.

What I cannot understand is, it sounds like the Katzenjammer kids. Does this dispersant work or doesn't it? Should we use burn or shouldn't we? Why couldn't people make up their minds?

I will never forget, in the Marine Corps, they used to have a saying, "Whatever you do, don't stand there. Do something." Did that occur to people?

Governor COWPER. It did, and in fact there was a burn that took place the second day of the spill. It had met with limited success because the crude has to be fairly well concentrated for that to work. It is basically like—you napalm it, that is what you do. And that was done.

However, that was another example of people not knowing where to get the person—it turned out it was a person from Kenai—on site. They did not even know who it was to begin with. We finally got that person there and did a fairly successful burn, but it was in a limited area. You cannot get it all that way. But it is certainly one of the failings of this response.

Senator CHAFEE. To read the chronology of this makes you weep.

Governor COWPER. Yes, sir.

Senator CHAFEE. Your idea of having a computerized summary of where the booms are located across the country makes a lot of sense. I just find it extraordinary to believe that no one knew where these booms were located. I thought the Coast Guard—didn't Admiral Lusk say that they had response equipment?

Governor COWPER. Senator, I don't think anybody knows to this day where all the equipment was. It goes back to the problem that Secretary Skinner mentioned. People did not think this kind of thing was going to happen. There were booms there. There were booms in the immediate vicinity, specifically in Kodiak. They were deployed, but we needed more than was available on site.

In the dead of night, I telephoned the Commander-in-Chief of the Pacific, Admiral Hardesty, and tried to ascertain what the Navy had, and it turns out that the skimming material that he had was not adequate for Prince William Sound. It would have worked fine in San Francisco Bay, but it would not work in the Gulf of Alaska or in Prince William Sound.

Our capabilities to respond to this type of spill —when I say our, I am talking about our country—are primitive. I identify myself with Mr. Reilly's comments. It is primitive compared to Norway and, ironically, the Soviet Union. The Soviets are coming with a vessel which, if it performs as advertised, is the type of vessel that we need to respond to this type of spill.

There was discussion by the Congress in the 1970s about our building that type of vessel. It was decided that it was too expensive; this kind of thing would never happen. It was not built.

But in any event, we do not have it. We should have that type of vessel. It is a seagoing skimmer. It always works on the same principle as a suction dredge, which means that it can pick up oil under the surface of the water, and that is where a lot of it is. We should have that capability in this country.

Senator CHAFEE. Well, Governor, my time is up and I certainly hope the Soviet vessel, which I understand from Senator Murkow-

ski is arriving very shortly, and I hope it is a tremendous success and that we can learn a lot from it.

Thank you very much, Governor. I appreciate your coming down.

Thank you, Mr. Chairman.

Senator LAUTENBERG (assuming Chair). Thank you very much, Senator Chafee.

Governor, we welcome you. Sorry to see the occasion that brought you here, but on the other hand, it is important that we do have a chance to get first-hand from you your views. You are the person on the scene, the highest level of government there.

I was in Alaska for 2 days, covered a lot of ground. I was in Valdez, and I talked to everybody, fishermen; I talked to the people at the Coast Guard station, talked to Mr. Stevens, talked to others, people from Exxon, and then went up to ANWR. I flew the length of the pipeline and talked to the people at the drilling sites up there.

I wonder at a couple of things. First of all, how do you feel about Federal approval of contingency plans? Would you feel comfortable having the Federal Government make the decisions on contingency plans?

Governor COWPER. Yes, Senator, I would. I think the Federal Government ought to be the entity that puts the plan into place, rather than simply approving a plan submitted by the industry, and I am speaking now of spills of this magnitude. I think that industry has demonstrated its ability to take care of relatively minor spills. But this is a major spill, and this is the kind of spill that is a serious danger to the environment.

Senator LAUTENBERG. Is there a question of preemption for State controls or State approvals of contingency plans?

Governor COWPER. Well, we will be glad to yield the right of way. We do have concurrent jurisdiction in this matter, at least in terms of the cleanup.

Our problem is that it is unclear where the jurisdiction starts and stops. We had very stringent tanker regulations that we put into effect in 1976. I was in the legislature at the time; I remember it. Those tanker laws were challenged in Federal court. They were struck down. They were inconsistent with the Ports and Waterways Safety Act and with the commerce laws. So we are not sure what we can do, and that is part of the problem. I think that this question of preemption and concurrent jurisdiction has to be addressed by this Congress.

We would like to have concurrent jurisdiction because if the Federal Government, if we think something ought to be done and the Federal Government does not agree with us, we want to go out and do it, anyway, if it is just cleaning up the spill.

Senator LAUTENBERG. It is a debate that we often get into here whether or not my State, New Jersey, has very strict environmental rules, and we do not like to see any preemption except if the standard being established is tougher than the one that we have.

I would hope that we can accommodate the knowledge base that you have developed within your own State, concerns that you have, and if we do get into legislation that clarifies the jurisdiction, that we do not totally preempt the State's opportunity to make decisions.

Are you familiar with any contingency plans adopted in other States, States that have extensive oil and energy exploration or coastal States like mine, New York, or otherwise? Have you ever discussed this in any of the Governors Association conferences or anything of this nature?

Governor COWPER. Senator, I have not, but our Department of Environmental Conservation is aware of those plans and has studied them. I have only discussed it with Governor John Waihee of Hawaii in the context of the spill of the Exxon Houston in Hawaii and what his contingency plan was, but it was a very limited conversation.

Senator LAUTENBERG. I was curious as to whether or not you have had the ability, in this crush of things, to find out what other States have done that might help you and help us formulate a course of action for the future. Probably that is something that we ought to try to assemble here. That is not a responsibility of yours. It may be an opportunity.

However, have you done an assessment yet on the wildlife damage? Do you know what is lost? Do you know whether there are any endangered species involved? I understand that eagles, for instance, may be having disastrous results from feeding on the carcasses and things of that nature.

Governor COWPER. Well, Senator Lautenberg, the evidence is just coming in. Clearly, there are a lot of birds that have died, but the migrations are just starting. The ducks and geese are just beginning to arrive. A lot of sea otters have died; there is no question about it. Some few have been saved, but they just break right up through the oil, and they get it on them, and then they died of hypothermia. A lot of sea otters are going to die as a result of this.

We don't know about whales. The problem here is that the toxins go up through the food chain, and we don't know what the result is going to be 2 and 3 and 4 and 5 years from now, because the toxins tend to concentrate the higher you get up the food chain. If herring have toxins in them and a halibut eats 45 herring a day, sooner or later, what you have is a toxic halibut.

I want to add there that Alaska has a very, very careful method of checking its seafood and that no toxic seafood is going to be sold from Alaska. All Alaskan seafood is pure. But a lot of fish are going to have to be excluded from the market in the future.

Bears will be affected. They come out and browse on the beach. They will eat carrion, specifically birds and animals that have died because of the oil. They will eat the oil, too. We are going to lose some bears. We are going to lose some eagles. We already have. No way of telling what the body count is going to be.

Senator LAUTENBERG. I had just one last thing, and I will call on my colleagues. Has the salmon hatchery discharged its fry or its hatchery product yet into the sea? Are they endangered? What is the situation there?

Governor COWPER. Senator, that question probably would be better directed to Dr. Riki Ott, who will follow me here, but my understanding is that the problem with releasing the fry is that once they get into the water, they need to eat right away, and if the microscopic organisms on which they feed have been killed because of the oil, then there is nothing for them to eat and they die.

But I would like to defer to Dr. Ott and others on that question if I may, sir.

Senator LAUTENBERG. Thanks very much, Governor.

Senator Reid, please.

Senator REID. Thank you, Senator Lautenberg.

Governor, I have been impressed with your being as candid as you have been. I think that a couple of things that you have said are strikingly apparent. Number one, computerized inventory of the equipment, and not only that; how much is it going to cost, because in a state of emergency, there could be some real gouging, and I think that is something that we need to work on and, of course, you and the State need to work on.

One of the things that we have not covered, Governor. I don't think we here in the continental United States, so to speak, understand how the citizens of Alaska are paying for this spill. It is hard for us to realize. We are removed. We see some pictures and hear people talk about the spoiling of the environment.

But I am certain that the people of your State are going to suffer and suffer for some time; that this affects real people. We down here kind of handle it in the abstract, but you have to handle it literally in person.

Try to tell us what is happening to the citizens who have monthly car payments to make and things of that nature. What is happening to your people in the State of Alaska?

Governor COWPER. We are still in a state of shock. We feel like we have been assaulted.

I have to say that the people in the area have responded as they would in an emergency like this. They have come forward and said, Look, we want to go out and clean up the oil. They are on the front lines right now. That is how they have responded. They know that their livelihoods are likely to be affected for years to come.

Nobody knows the extent of the damage here, but people understand, number one, that there will be a permanent change in the political chemistry of Alaska as a result of this; and that, number two, their lives as individuals will be changed in ways that nobody understands at the moment, particularly the people in the coastal communities.

The Alaska fishing industry is legendary. It is the largest by far of any State in the union. It furnishes a large amount of our international trade with Japan. It is a tremendously important industry, and the people who work in that industry are going to be affected by this in a major way.

That is one of the reasons that I wanted to submit recommendations to this committee at a later date, as soon as we have been able to work it out, to get a simplified method of payment made to the people who are affected by this. I have to say, having said that, that Exxon certainly has indicated that it is willing to do this in good faith, and I take their statements in good faith.

Senator REID. To do what, compensate the individuals?

Governor COWPER. To compensate people quickly before they have to make their boat payments and before they get into financial distress.

But I am compelled to hedge some here. I think what we need more than anything at the moment is a simplified method of com-

pensating people who can come in and make a showing of financial loss so that they can be paid. It will not in any way take the place of the fishing season, but it is the best we can do.

Senator REID. Governor, we in Nevada had, a year or so ago, a tragedy where a plant blew up and luckily only killed three people but injured scores of people and damaged almost all the homes in the town of Henderson, Nevada.

I cannot imagine what the people of your State must feel, because in our State, as a result of that, as you indicated, it changed longstanding political commitments; it changed zoning patterns that had been going on for decades. I literally cannot imagine what you are going through in the State legislature and the local governments. While I can try to imagine what you are going through, that is about all I can do.

Let me say this. What you have said has some long-term implications, and people in the State of Alaska, I am sure, it will affect them for years to come. For example, many people in the Congress, the House and the Senate, had an open mind on the ANWR thing. I am not too sure how open it is now as a result of this, and maybe that is not clear thinking, but speaking to some of my colleagues, that certainly is the general feeling running through the Congress, and that is why Senator Bennett Johnston decided not to go forward with that proposed legislation this year.

Having said that, what is the best thing the Federal Government can do to help the families and the communities of Alaska?

Governor COWPER. Senator Reid, the most immediate thing would be to—if we can do this legally, and this is one of the reasons I needed to defer a specific recommendation here—but I would like to see the TAPS oil spill fund, which is reported to be in the neighborhood of $270 million now, a portion of that be utilized to compensate some of the people who are going to be affected by this.

Maybe there is some method by which it can then recover back against Exxon. I don't know how that works. I am not worried about that part of it. What I am worried about is a system that responds quickly and fairly to the needs of the people who have been affected here.

The last thing I want in the world is for the people of Cordova and Valdez and Seward and Tatitlek and the other areas who have been directly hit by this to have to go and sue Exxon in Federal court. That will go on forever, and they will have to turn their boats back in by the time they get any money from that. So that is the most immediate problem that we have.

I want to reiterate that Exxon is working with us in good faith on that problem. But I do think we have to hedge on it.

Senator LAUTENBERG. Senator Lieberman.

Senator LIEBERMAN. Thank you, Mr. Chairman, and again, thank you, Governor, for being here with us.

I want to pick up on the last point, which is the legal rights, the ease of obtaining compensation for the people of Alaska who have suffered such incredible losses as a result of this tragic accident.

I and my staff looked at some of the laws involved, and I am actually concerned that there is a very old Federal law here which is called the Limitation of Vessel Owners Liability Act of—would you

believe—1815, that may restrict the ability of your people to fully recover damages for the suffering that they have endured.

I want to say to you that, in the first place, I hope you are able to work out some kind of alternative dispute resolution with Exxon here, but if you are not, I would be glad, and I am sure others here would also, to work with you to do what we can through the Federal law to make sure that your people have clear rights of action, because they clearly have suffered.

Governor, I want to say to you that I tremendously admire the leadership you have shown in this situation, but I do feel we have to ask, as we have asked everybody here, what we learn from this tragedy, and particularly as a Senator from a State that has a body of water, Long Island Sound, with a lot of oil going over it, I want to ask you to look at the record of State government and evaluate it for me. Is there more, looking back at it, that you think the State of Alaska should have done, more that it could have demanded of the pipeline or the oil companies?

Governor COWPER. I'm sure it is, Senator. We have proposed new people for DEC—the Department of Environmental Conservation—to address this specific problem. Some of the money was not approved by the State legislature. We asked for it. We have added people—a substantial number of people—to the Department of Environmental Conservation over the last two years during my administration at a time when revenues are declining.

We, nevertheless, thought that was more important. It was more important to add people to our capability in that respect.

Senator LIEBERMAN. What will those people do? Were those specifically related to oil and oil shipping?

Governor COWPER. They would have been people who basically were there to verify the fact that equipment was in place that was required by the contingency plan. That is almost the limit of our jurisdiction.

We don't have a very good idea of what we can do here because of the Federal court decision that deprived us of the protection that we had given ourselves in 1976.

I think that everybody agrees that the basic problem here is that there was a degree of complacency. In a way, a very small way, it is like a nuclear attack: everybody realizes that it is possible, it is just not very likely, so you divert your attention and your energy to other, more pressing, and immediate problems.

We were, for instance, involved in a very bitter dispute with the Alyeska Pipeline Corporation about proposed regulations that we wanted to put in place about ballast water discharge in Valdez Harbor or in that neighborhood. That's what we were doing at the time.

As I mentioned earlier, there had been a spill of about 1,500 barrels in Valdez Harbor. It was boomed off. It was taken out of the water. There was no major damage, and maybe no minor damage, for all I know. But I think that it is basically a problem that everybody saw in the early 1970s, and nothing happened over a long period of time. Our spill response capability had been cut down in the meantime, and——

Senator LIEBERMAN. Because of lack of personnel, you mean?

Governor COWPER. Well, let me put it this way, Senator. When I arrived in office, the Department of Environmental Conservation had been reduced to a level that compelled them to operate four days a week. Their people had also taken a ten percent pay cut. They had been reduced by 35 percent—I believe that is the correct figure—over the two years previous. We brought them back, but there is still not adequate personnel to do the job that is required of that agency.

Senator LIEBERMAN. Based on the experience that we have had—and I understand that you're saying that the State, I guess like everybody else, grew complacent about the possibility of this happening—would you have added to the contingency plan? Would you rewrite it now to cover a situation like this?

Governor COWPER. I don't think the State government was complacent, but I think that the political processes—that is, as they are translated through the budget process— reflected the views of most of the people in the State that you didn't have to worry about this sort of thing.

The people in the Department of Environmental Conservation have constantly said that we have to be on guard for this problem, but nobody paid any attention to them for a long time. I expect that has changed now.

Senator LIEBERMAN. Let me ask you a tough question here. You made a very interesting comment before about this event changing the political chemistry of the State. All of us that have gone through the political process know that there are some industries in our States which contribute so much to the State, and, therefore we may be a little bit hesitant to regulate them too toughly, or it is tough to do it. Am I correct that more than half of the revenues of the State of Alaska are derived from the oil industry?

Governor COWPER. Yes, Senator. It is a lot more than half, actually.

Senator LIEBERMAN. Pardon me?

Governor COWPER. It is a lot more than half.

Senator LIEBERMAN. How much is it, would you say?

Governor COWPER. It is 85 percent, if you can believe that.

Senator LIEBERMAN. Right. Now, do you think, with that in mind--and I gather that the general attitude of the people of Alaska toward the oil industry up until this event has been an understandably positive one, which is to say this was the goose that was laying the golden eggs for the State and providing jobs; is that correct?

Governor COWPER. That's correct. It is our major industry in terms of dollars. People understand that it is an industry with which we are going to have to coexist.

Senator LIEBERMAN. Do you—

Senator LAUTENBERG. Senator Lieberman, I'm sorry to tell you this but you're time has expired.

Senator LIEBERMAN. I have one last question, if I may.

Senator LAUTENBERG. Sure.

Senator LIEBERMAN. Thank you, Senator.

Do you think, in light of what we have just said about the influence of the oil industry in the State, understandably that the State, over the years, has been less demanding than it should have been

about the contingency plans and the safety preparation of the oil industry in Alaska?

Governor COWPER. It is possible. I think that the complacency set in everywhere. I think it happened in the industry, it happened with the Federal Government, I think it happened with the Coast Guard, I think it happened with the State. It is a mental state, not a specific act.

I know that the Coast Guard—or at least it has been reported to me that the Coast Guard equipment had been downgraded in Valdez Harbor over the last few years to save money in its budget, for instance. I can't certify that that is correct, but that—I have been given that information.

I think everybody was more complacent than they should be here.

Senator LIEBERMAN. Thank you, Governor. Thanks, again, for being so candid.

Senator BAUCUS. Thank you very much, Governor. We very much appreciate your time. You're heading back to Alaska, I assume?

Governor Cowper. Yes, Mr. Chairman. Very quickly.

Senator BAUCUS. Good luck.

Governor Cowper. Thank you.

Senator BAUCUS. Our next witness—there are several in the panel: Mr. William Stevens, who is president of Exxon, U.S.A.; and Mr. Ivan Henman, Vice President of Environment and Energy for Alyeska Pipeline Service. Mr. Stevens will be accompanied by Mr. Frank Iarossi, President of Exxon Shipping Company; and Mr. Ivan Henman is accompanied by Mr. Theo Polasek, who is Vice President of Operations for Alyeska Pipeline Service Company.

Mr. Stevens, you, too, have been very patient. Please proceed.

STATEMENT OF WILLIAM D. STEVENS, PRESIDENT, EXXON CO., U.S.A., ACCOMPANIED BY FRANK IAROSSI, PRESIDENT, EXXON SHIPPING CO.

Mr. STEVENS. Thank you, Mr. Chairman and members of the committee.

I am Bill Stevens, President of Exxon Company, U.S.A. I am here today to respond to your questions regarding the Exxon Valdez oil spill and describe our efforts to deal with it.

Let me say at the outset that we do not know what caused the accident. The National Transportation Safety Board hearing on May 16 will provide more details as to what happened, and we look forward to having the results of its investigation.

Our response to the spill from the Exxon Valdez was prompt and consistent with the previously-approved contingency plan. Within three hours of the spill, Exxon Shipping Company set up a casualty response center in Houston. In the first few hours, arrangements were made for the first 5 of over 80 needed aircraft to airlift more than 2,000 tons of equipment to Alaska.

Exxon's key response team managers were in the air the morning the spill occurred, and were on sight 18 hours after the vessel grounding. Dozens more trained people and tons of supplies began

arriving that afternoon, and have continued arriving daily—through today, I'm certain.

Steps to charter aircraft, hire consultants, and purchase supplies were initially expedited from Houston and later in Valdez.

On arrival, one of the response teams' immediate priorities—but not its only priority, one of its priorities—was to prevent the one million barrels of crude remaining on the ship from leaking into Prince William Sound. The difficult and risky process of lightening the oil was successfully completed on April 4.

Salvage operations began immediately, with a refloating of the vessel on April 5.

From the outset, the Exxon team moved rapidly to assemble materials and personnel to recover the spilled oil on the water and to protect the most sensitive threatened areas of Prince William Sound. That effort grew quickly and constitutes today what is probably the largest build-up of equipment and personnel ever assembled anywhere to combat an oil spill.

Early booming and skimming operations were conducted to protect five key fish hatcheries. On April 2nd, a Shoreline Cleanup Priority Committee was formed, and on April 8th, preliminary approval was obtained from the Coast Guard, the Alaska Department of Environmental Conservation and eight other agencies for shoreline cleanup strategy. And, as you know, on Monday of this week the final cleanup plan was approved by the Coast Guard.

Our response was consistent with the actions envisioned in the oil spill contingency plan developed by Alyeska and reviewed and approved by both Federal and State authorities.

While it was thought to be unlikely, the approved contingency plan did consider the possibility of a 200,000 barrel spill in Prince William Sound—about the same size and in the same vicinity as the actual spill. The approved plan recognized that a spill of that magnitude could not—repeat, could not—be fully contained, that large volumes of oil would reach the shore and a significant cleanup effort would be required.

The approved contingency plan emphasized the importance of immediate and early use of dispersants and open burning. We are confident that had we obtained prompt permission to use dispersants and open burning, the environmental damage from the spill would have been mitigated.

In addition to our efforts to contain and clean up the spill, we have also mobilized to mitigate the economic impact on the communities of Prince William Sound. One of the first members of our team was a claims agent to begin to set up the long process of handling claims. We currently have 30 agents on the scene, and more are coming. We have opened claims offices in Valdez, Cordova, and Homer and, in fact, advertised in the paper state-wide.

Many local fishermen and others are employed in our containment and cleanup efforts in the Sound. Over 1,800 people are currently involved, and more are being hired every day.

We have also been moving to assess and deal with the environmental effects of the spill. As part of the initial response, Exxon moved rapidly to assemble a group of environmental experts to provide advice to our response team on the best ways to go about cleanup and to mitigate damage to the environment.

This team, working with Federal and State personnel, moved quickly to identify sensitive areas for protection and assessed biological and ecological impacts of the spill on water quality, sediment, and marine life.

It is less than a month since the accident, and we are in the midst of an extensive oil recovery and cleanup operation. It will take time to render a considered judgment about the improvements that may be needed in light of what we have and will learn about the accident and the response to it.

Mr. Chairman, I believe that by our actions, we in Exxon have shown our intention to deal responsibly with the spill and its effects. We cannot undo what happened; we can, however, and are taking every reasonable action to limit the damage, clean up the mess, and otherwise mitigate the impact.

Before I turn it over to my associate, let me introduce Frank Iarossi, who is on my right. Mr. Iarossi is president of Exxon Shipping Company. Frank received the call about the grounding of the ship early that Friday morning in Houston. He is the person who put our response team and plan into action and led that team to Valdez for the first critical 14 days. He and his people did an outstanding job under what were very trying circumstances. I am quite pleased to have Frank with me this morning to answer your questions.

Senator BAUCUS. Thank you, Mr. Stevens.

Our next witness is Mr. Ivan Henman.

STATEMENT OF IVAN L. HENMAN, VICE PRESIDENT, ENVIRONMENT AND ENGINEERING, ALYESKA PIPELINE SERVICE CO., ACCOMPANIED BY THEO L. POLASEK, VICE PRESIDENT, OPERATIONS, ALYESKA PIPELINE SERVICE CO.

Mr. HENMAN. Mr. Chairman and members of the subcommittee, I am Ivan Henman, Vice President of Environment and Engineering for the Alyeska Pipeline Service Company. I am here to respond to any questions that you may have concerning the other environmental issues that the committee indicated an interest in.

Also, with me today is Theo Polasek, our Vice President in charge of Operations, who will respond to the oil spill response issues.

Mr. George Nelson, who is the President of Alyeska regrets that he is unable to appear this morning due to medical reasons.

I have earlier submitted two written statements that I would like to have entered into the record. In the interest of time, however, I will not read the statement and will proceed with questions shortly. I do want to make a couple of comments, however.

Senator BAUCUS. The full statement will be entered in the record.

Mr. HENMAN. Thank you.

The first comment I want to make is a sincere regret from Alyeska of the situation that has occurred. We recognize and are sensitive to the fact that it is, in fact, a tragedy. So anything that we say this morning I hope does not appear insensitive. Our people do care. The employees with Alyeska have gone through a very

painful process because of the publicity that this incident has resulted in.

The second comment I want to make is that I personally agree with Mr. Skinner in his assessment of the state-of-the-art capability of response and control equipment. The ability for the state-of-the-art equipment to deal with a spill of this magnitude apparently doesn't exist, in my mind. We have gone through a tough lesson to learn, and as we go through answering your questions today, Mr. Polasek will address, at times, what Alyeska Pipeline and the industry and our owners will be looking at on how we can prevent this from occurring again and how we can best respond to an event if, in fact, it should happen.

One other point that I'd like to make is that we are ready to assist the Congress and the State in developing plans and policies to assure that this won't happen again. One of the things that I would suggest that Congress and the industry address is the risk assessment that has been done on what is acceptable risk in dealing with a tragedy such as this.

With that, I would be glad to answer any questions you might have.

Senator BAUCUS. Is your position then, Mr. Henman, that even with all the best efforts of Exxon and Alyeska and the Coast Guard that you would have had the same consequences—the same degree of damage to wildlife and to the shorelines? I don't quite understand your——

Mr. HENMAN. Frankly, I agree with Mr. Stevens, who said that had the plan worked as it was designed to work that a bad situation could have been mitigated. It was a bad situation, and, frankly, the state-of-the-art equipment, as we know it today, would not be able to deal totally with a spill of that size.

Senator BAUCUS. Do you believe the plan was adequate?

Mr. HENMAN. Yes, I do. I believe the plan had some limitations.

Senator BAUCUS. The plan was adequate?

Mr. HENMAN. The limitations in the plan were clearly spelled out. It was recognized by the plan, and the plan expressed those limitations.

Senator BAUCUS. Which limitations are you referring to?

Mr. HENMAN. I'm going to ask Mr. Polasek to address the oil spill contingency plan.

Mr. POLASEK. Senator, if I may, shortly after the spill the owners of the pipeline did put forth a press release that expressed their regret about the incident, and we all share in that. They also expressed some actions that they were proposing to take, many of which have been implemented already; for instance: a two-tug or two-vessel escort for loaded ships going out to Hinchinbrook; increased coverage by the State-licensed pilots out to Bligh Reef—a number of things that they have indicated that they intend to do.

Since then, we have continued to work with the owners and with the State to try to come up with other means that might be implemented to strengthen the plan from what it was, and I'd like to go into those in a moment, if I may.

Senator BAUCUS. We have very little time, if you could just get to the heart of the matter.

Mr. POLASEK. I was going to mention that the plan, itself, was developed and had in it sufficient equipment to handle the requirement. In the State regulations it requires picking up the most likely spill within 48 hours, and we have far exceeded that.

In addition, the plan recognized that when there would be a very large spill you immediately would call in other equipment from all of the co-ops—the Coast Guard strike team and other forces—and then we worked with the State for the last revision, which was in 1987, to include the very strong impact of dispersants, recognizing that in large spills that would have to be a very potent tool. It is one of the tools you use to combat a very large spill.

Immediately we began working with the RRT——

Senator BAUCUS. What about the adverse environmental consequences of using dispersants?

Mr. POLASEK. Well, but this particular product has been approved by the EPA for this use, and so it was included. The State participated in——

Senator BAUCUS. I don't want to be picky here, but I'm not talking about asking whether the product had been improved by EPA generically to deal with dispersants; I'm asking if it isn't true that using dispersants has an adverse environmental effect.

Mr. POLASEK. We don't believe so, sir.

Senator BAUCUS. There are many who think so. Go ahead.

Mr. POLASEK. I'm saying that at the time we discussed this and it was worked with the State on the basis of improving the strength of the plan. With that, we included dispersants and the requirement for a very rapid deployment. So we started working with the RRT—the Regional Response Team—to get that zonation map, which was required so the Coast Guard commander on scene could make the decision to deploy dispersants. Unfortunately, that took a little over two years to get that zonation map. It was approved two weeks before the spill occurred.

So, until that time, it was always questionable as to how rapidly a decision could be made. But, unfortunately, in this case, when dispersant was not used extensively in those first two days, we missed the very critical time window, in my opinion. The high winds came Monday and blew the oil all over.

If I could, I'd like to go into a little bit about the equipment that we are talking about that might help you.

Senator BAUCUS. Tell us about dispersants. I understand the initial disbursement tests were unsuccessful, so how can you say that it would have worked?

Mr. POLASEK. I don't——

Senator BAUCUS. The press reports that I have seen are that the initial disbursement tests were unsuccessful.

Mr. STEVENS. Could I reply, Mr. Chairman?

Senator BAUCUS. Sure.

Mr. STEVENS. I'll take the broader question and come to the more specific. The spill plan in place was not adequate to handle a spill of this magnitude and that was recognized in the plan. You said you have read the plan. The words used in the section you referred to are "highly unlikely."

Senator BAUCUS. Wait a minute. Those are two highly separate points. It may be highly unlikely——

Mr. STEVENS. I understand.

Senator BAUCUS [continuing]. That an event occurred, but that is an entirely separate and distinct point from whether, if it occurs, whether the plan is adequate to deal with it. Those are entirely separate points.

Mr. STEVENS. And, as I said in my comments, the plan then went on to recognize that extensive beach cleanup was going to be required. The plan did recognize that early, immediate use of dispersants and burning would mitigate the effects of beach cleanup.

Now let me comment on dispersants, if I might—the latter part of your question.

Senator BAUCUS. When answering that, too, the plan contemplated a 50 percent cleanup. There is only eight.

Mr. STEVENS. Fifty percent off the beach.

Senator BAUCUS. Fifty percent recovery.

Mr. STEVENS. No, not 50 percent recovery. Fifty percent would be evaporated and recovered and dispersed, if you will.

On dispersants, I'd like to correct several things that the Governor had to say.

Senator BAUCUS. But only eight percent has been recovered.

Mr. STEVENS. By skimming, yes, sir.

Senator BAUCUS. That's correct.

Mr. STEVENS. But it was recognized that skimming would not recover very much at all.

The Governor said we had the wrong dispersant on hand. Not true.

The Governor said that dispersant would not work on cold water. Not true.

The Governor said it would not work on this crude. Quite the contrary. It is one of the more favorable crudes for dispersant in the world. It has been tested extensively in California.

The Governor said that dispersant needed testing. Not true. We were not permitted to use it without testing. The State agency, along with the Coast Guard, were both involved in insisting on the test. It has been tested extensively and, as was stated earlier, it is approved by the EPA, it is approved by the State of California, and it is approved by a number of foreign governments.

With respect to toxicity, the dispersant, itself, is two orders of magnitude less toxic than crude oil dispersed in water. And a mixture of dispersant and crude oil is no more toxic than the crude oil, by itself. So it shouldn't have needed testing. We didn't think it needed testing. Alyeska had the same view. Yet, testing was insisted upon.

If there is any question about it working, I have a videotape which I will be glad to leave with the committee to show you visually—I apologize for the quality to begin with—how rapid the effectiveness of disbursement was in this film. This was a test on—when was it, Frank?

Mr. IAROSSI. Sunday.

Mr. STEVENS. Sunday. We began asking for dispersants on Friday. We got dispersant use approved at 6:35 on Sunday afternoon.

Mr. IAROSSI. At 6:45 on Sunday evening.

Mr. STEVENS. So, with respect to your question, what could have been done to limit the damage, follow through with the plan immediately—dispersants and burning.

Senator BAUCUS. So it is Exxon's position that had Exxon been able to go through with the dispersant operations that it requested or wanted to that we would have reduced the consequences of the spill by what magnitude?

Mr. STEVENS. We would have mitigated it. It is hard to say because——

Senator BAUCUS. By what magnitude?

Mr. STEVENS [continuing]. Of the questions on open burning. Somewhere between 20 percent and 50 percent, I would say.

Senator BAUCUS. And the material was on hand? You had enough dispersant and equipment to use disbursement?

Mr. STEVENS. We had enough equipment on hand——

Senator BAUCUS. What's the delay? You're saying delay was where?

Mr. STEVENS. We had enough equipment on hand Saturday and Sunday to fly every mission that we could fly, and then by Tuesday we had all the equipment we could have possibly used.

Senator BAUCUS. You're implying that you had all the material, but that some other entity prevented you from utilizing that?

Mr. STEVENS. The comment was made that testing was required. Again, Mr. Chairman, let me be sure I make myself clear. It was our vessel. It was our people involved. It was our oil. It is our problem. We accept responsibility for it. But we are being charged, if you will, on slow and inadequate response. I just wanted to take this opportunity to set the record straight that it is a lot more complex than just Exxon. I'm not wanting to point fingers or cast blame. I'm trying to fulfill the charge of this committee to learn as much as possible from what is, admittedly, a very bad and disastrous experience.

Senator BAUCUS. My time is up.

Senator Chafee.

Senator CHAFEE. Thank you, Mr. Chairman.

Mr. Stevens, I read over your statement, and it is full of references to how rapidly you responded, and so forth. And then you say, on page 2, that you did not receive approval for use of dispersants and open burning. Who do you have to get the approval from?

Mr. STEVENS. May I turn that question to Mr. Iarossi, who was on the ground?

Senator CHAFEE. Yes.

Mr. IAROSSI. Senator, if I could I'd like to go factually through the whole sequence, and I think you'll begin to understand it.

On the morning of the spill, at 4:30 in the morning Alaska time, one of the gentlemen that was going to be the on-scene commander for us called the on-scene commander for the Coast Guard and asked if we had approval to use dispersant. He said it had been pre-approved.

Alyeska, at 8:34 that same morning—this is day one—put in their ten-page formal application. At 6:12 in the morning the second day—this was Saturday—we had our first spray aircraft, the C-130. At 12:00 that afternoon—and we had been in constant

communication with the Coast Guard on-scene commander about using disbursement. At 12:00 he told us that we had—and, by the way, this was done at a press conference in which he told the press and the citizens, because there was great interest in it—He said that Exxon had authority to test the effectiveness of dispersants on the oil, and also to test open burning.

He then went on to say that Exxon would need additional approval from the Coast Guard and from the State before either method could be used after the tests.

We did test Saturday afternoon both dispersant and burn. At 3:30 p.m. Sunday afternoon—that's day three—we got authority to use open burning. At 6:45 p.m. Sunday evening—this is now 66 hours after the incident—we got the authority to use dispersant. By the way, dispersant, in the 200,000 barrel scenario in the contingency plan, is stated very clearly as your number one tool for——

Senator CHAFEE. Slowly. We've got an interesting situation here in which basically you're saying you responded quickly, you had the planes there to put out the dispersant, but the Coast Guard and the State wouldn't give you approval; is that correct?

Mr. IAROSSI. Yes. What I can say very——

Senator CHAFEE. Until 66 hours afterwards?

Mr. IAROSSI. Yes. At 6:45 p.m. on Sunday we got the authority to use dispersant. That was 66 hours after the initial spill.

I would like to talk about the dispersant available. At the time of the incident there were 365 drums of dispersant in Alaska. Each drum is 55 gallons.

On the second day, Saturday, in the morning we had 88 additional drums in, and on Sunday morning we had 149 additional drums in. That gave us over 600. In the tests that we were able to run on Saturday and Sunday we only used 197. So we had an additional 400 drums. That's more than enough for four runs. And then we continued to bring dispersant in. on Monday and Tuesday. We had enough dispersant and planes for four additional runs on Monday and eight additional runs on Tuesday and thereafter.

So, as far as the dispersant, we had plenty of it. We had the planes there. Our initial request was at 4:30 in the morning of the spill, and the official request was at 8:34 on the morning of the spill, and 66 hours after the spill——

Senator CHAFEE. But I thought you told me——

Mr. IAROSSI [continuing]. We got authority to use it.

Senator CHAFEE. I thought you said that you had received verbal approval. My notes show that 12 hours after the accident regional response team teleconferenced to discuss use of dispersants and/or on-sight burning of oil. This is 12 hours after the accident, which would have put it at around noon on Friday, 12 hours after the accident.

Mr. IAROSSI. Yes.

Senator CHAFEE. And so why didn't you do it if you got the permission?

Mr. IAROSSI. We did not have permission. When I arrived 6:30 in the evening on Friday we started right in to begin to mobilize for the use of dispersant. We were told we could only test and we had to prove the effectiveness very clearly.

At noon Saturday, 12:00, the Coast Guard on-scene commander made a statement—we have tapes of it, and so does all the press—at a big conference. He said we only had authority to test the effectiveness and that we would have to come back for additional approval after the tests from the Coast Guard and from the State. It was very clear and——

Senator CHAFEE. Do you suppose there was a reluctance here because they thought it was going to be worse than the cure? So toxic it was going to be damaging?

Mr. IAROSSI. I think there was considerable anxiety about whether the dispersant would be effective and whether it would add chemical into the water. I can only say that factually we did not have approval until 6:45 p.m. Sunday night, and there was a lot going on behind the scenes that I was not privy to.

Senator CHAFEE. Let me ask Mr. Henman and the Alyeska people the following—this is from the Sunday "New York Times" two days ago:

> It has been generally assumed that short staffing and equipment problems were to blame for the early delay. In the public statements Alyeska, which is charged by the State with preparing and implementing the initial response, attributed delays entirely to problems with barge damaged in winter storm.

Are you with me?

Mr. HENMAN. I'm listening, sir.

Senator CHAFEE. The article goes on to say:

> But interviews with Alyeska employees indicate that hours before the first response boats left the Valdez terminal, enough equipment and personnel were on hand to take the initial steps required by law. Some government officials are coming to the same conclusion and are now examining the possibility Alyeska's managers deliberately delayed the response.
>
> If true, no one knows for sure what might have motivated such costly delays—possible jealousies among the seven oil pipeline owners who compete rigorously elsewhere in the world or simply a paralyzing bureaucratic inertia among pipeline workers fearful of making vital decisions before the arrival of a planeload of top Exxon officials.

That's a pretty tough indictment. What do you say to that, Mr. Henman?

Mr. POLASEK. Well, first of all I simply do not understand the basis for that statement, because there is nothing in that that I can see as being anywhere close to the facts.

If I might, for a moment, address why it took us as long as it did to get out there relative to the plan—and that has been one of the problems that we have had. People have looked at the time frame that was listed in the contingency plan, and it has been quoted that we had an obligation to be there within five hours.

If you look at that plan very carefully in that scenario—and it is a scenario—the scenario says that under those particular set of circumstances, a rough guideline is that we could be out there in five hours. But that is only for that scenario.

When you look and compare the real-life situation against the assumptions in the scenario they are vastly different. First of all, in this case the time was 12:30 a.m. rather than 6:00 in the morning, and this was on a winter day rather than a summer day.

In addition, you have a situation where, in this case, one of the critical elements was a vessel in distress. Along the way, as we were loading the barge, we had a change in priorities. The priority

came back from the Coast Guard and said the lightering is a priority, restage some of the lightering equipment from the barge and put it on a tug so they can get there quickly, and we did that, and that took time.

The other thing is the travel time. The travel time was three and a half hours versus the two and a half hours in the plan.

So I'm not quite sure what the standard of performance would be under this particular set of circumstances, but it certainly wasn't the five hours, which is the standard only with the scenario. That's part of our problem. We've been judged against that scenario.

Senator CHAFEE. Mr. Chairman, my time is up, but just let me say this: I personally don't attach everything to the plan. It seems to me you've got an emergency out there and everybody should hustle as much as they can and not say, "Well, the plan says five hours so we'll take five hours." This is a ghastly spill, I am amazed that people just didn't drop everything and plunge into it and go to it.

Mr. POLASEK. Senator, we did. We dropped everything we had and we plunged into it and gave it 100 percent effort, and we have proven it.

In January we had a major spill and the people were out there instantly.

Senator CHAFEE. That was in the harbor?

Mr. POLASEK. In the harbor. And it is no different in the sense of the dedication of the people. The people are totally dedicated to do the job, and they have performed beautifully in this circumstance as well as the prior one, sir.

Senator CHAFEE. Thank you, Mr. Chairman.

Senator BAUCUS. Senator Lautenberg.

Senator LAUTENBERG. Thanks, Mr. Chairman.

Very quickly, if we can, please, what is the percentage of ownership of the pipeline among the major owners?

Mr. HENMAN. You want a breakdown?

Senator LAUTENBERG. Yes. BP owns what share?

Mr. HENMAN. BP owns slightly over 50 percent, approximately; Exxon and Arco have approximately 20 percent; and then others.

Senator LAUTENBERG. Is that 20 percent each for Exxon and Arco?

Mr. HENMAN. Yes. They're not quite that. Perhaps Exxon would like to speak——

Senator LAUTENBERG. I just want to get some proportionality here, because Exxon, with 20 percent of the equity—that's what I had heard before—certainly wasn't in the control position that it might have been, in my guess, to help direct those activities.

We hear about plans that are in place, and plans that are adequate, and the end result is that the thing didn't work. What kind of drills, what kind of rehearsals, what kind of readiness was there that caused everyone to say, "Okay, we know this plan will work." And to be surprised at the size of the spill—Mr. Stevens, you and I met up there in Alaska, and Mr. Iarossi was not available. They were working you pretty hard up there at the time. But I was up there five or six days after the spill took place, and it was just beginning to wend its way through the islands. You said that there was a contingency plan for 200,000 gallons.

Mr. STEVENS. Barrels.

Senator LAUTENBERG. Barrels. I'm sorry. Well, that's about what we had.

Mr. STEVENS. Yes, sir.

Senator LAUTENBERG. But look at where we are. The fact is that whatever that plan was, it certainly, in this instance, looking backwards, was not worth much of the paper that it was written on because the devastation, not one of you at the table could, in good conscience, have ever said, I assume, "Look, we'll do the best we can, and the rest of it we'll just have to depend on nature to take care of."

What was there that was so weak in this plan that things went awry as they did?

Mr. STEVENS. Senator, if I might I'll try again. The chairman and I exchanged comments on this point a moment ago. My own view is that the occurrence—200,000 barrels in Prince William Sound—was viewed "so highly unlikely" that the consequences of it, which have occurred much as envisioned, were viewed as acceptable. By today's retrospective view, that is not the case. That may be incomprehensible, Mr. Chairman——

Senator LAUTENBERG. Well, it is, because if you say that, then——

Mr. STEVENS. But it was approved by State officials, the Department of Environmental Conservation, as most recently as 1987, and it was approved by Federal officials, as well.

Senator LAUTENBERG. If I may interrupt, Mr. Stevens, the fact is that what you say suggests that you have so few fires in schoolhouses that the hydrants ran dry and the drills, not necessary. Here we have had all these shipments, and there is no doubt in my mind that complacency overtook this whole thing, including the best-laid plans by Alyeska and everybody else.

You talked, Mr. Polasek, about the two-tug escort. When was that put into practice as it relates to this accident?

Mr. POLASEK. That was put in after the accident.

Senator LAUTENBERG. After the accident. Three days? Four days?

Mr. POLASEK. Along with a number of other things. The practice was included as well actually started back into operations, which would have been several days after the accident.

Senator LAUTENBERG. Several days?

Mr. POLASEK. Yes.

Senator LAUTENBERG. And how long did the two-tug escort continue?

Mr. POLASEK. It will continue from now on, sir.

Senator LAUTENBERG. It was my understanding—I was up there—that it was put in place for a couple of days and then withdrawn.

Mr. POLASEK. No. Actually, we have already committed to continue that process, and what we will have is a tug, and the other vessel will be a tender or a very large barge-type structure that will have boom on it, will have some skimming equipment on it, that will be going along in convoy with the tanker on the way out. It was an immediate response. We have done a number of things to improve the situation, if I may.

Senator LAUTENBERG. Did that two-tug escort process stop at all after it was begun? Or has it continued to this moment?

Mr. POLASEK. It has continued, and it is continuing now.

Senator LAUTENBERG. It was not interrupted at all?

Mr. POLASEK. No. We have been doing the two-tug escort since then.

Mr. STEVENS. Senator, when you were there it was a temporary requirement to get the port back open, but it has since been made permanent. So your recollection is correct.

Senator LAUTENBERG. Mr. Stevens, Exxon knew that Mr. Hazlewood had a drunk driving record; is that true?

Mr. STEVENS. No, sir. I was going to correct the record on that, if I might. Exxon did not know anything about the status of Hazlewood's driver's license anywhere through the time period in question. We had no knowledge.

Senator LAUTENBERG. It is asserted that they did. Would you now, as a matter of practice, investigate the drinking habits of anyone given that kind of responsibility?

Mr. STEVENS. Senator, we have been, in the past, investigating the drinking habits of people—particularly individuals that have been through a rehab program.

Senator LAUTENBERG. This man had been with you?

Mr. STEVENS. Yes.

Senator LAUTENBERG. How could you not know that he was a problem drinker if you put him through a rehab program?

Mr. STEVENS. Our policy, which is, admittedly, a two-edged sword, is to promote self-identification, and rehab is the cornerstone, according to the experts. Admittedly, since we have changed our policy in the last few weeks in view of events, experts are now arguing that our new policy, which is not to rehab an individual in a critical job, is equally wrong. Again, it is a societal problem as much as anything else.

But the practice and the policy were followed in this instance.

What is required to make that work, a la United Airlines practice, is close monitoring and follow-up after the individual returns.

Frank, would you comment on that?

Mr. IAROSSI. From the time that Captain Hazlewood returned from rehabilitation he was the most closely scrutinized individual in our company—we had about 1,300 employees at the time. The main task of monitoring and watching Captain Hazlewood went to our fleet operations manager, who reports directly to me, and one of his subordinates, the ship group coordinator, who is the supervisor for Captain Hazlewood.

Those gentlemen visited Captain Hazlewood on an average of twice per month during those first two years. They watched not only Captain Hazlewood, but they also made themselves available to other members of the crew so that if there were any signs that we could learn from other people, we were attuned to it.

After those first two years, Captain Hazlewood was transferred to the West Coast, and there the responsibility went to the fleet operations manager and his supervisor there. They maintained that surveillance by visiting his ship every time he was in port, visiting with him, doing everything they could to see what was going on.

In addition to that, there were three extended periods—each of about five days—during the course of those four years—and this was a four-year period now. During the course of those three periods, other managers in the company besides myself had an opportunity to watch Captain Hazlewood, to watch how he interacted, to watch what he was drinking—and he was only drinking iced tea and Perrier water any time we saw him. The last of those—one of those opportunities was in 1986, one in 1987, and one in 1988. The last one was in March of 1988. Following that meeting, we had an on-purpose meeting with myself, his fleet operations manager, and our human resources manager. We met solely to compare notes on what we had seen of Captain Hazlewood and what all of our impressions were.

Senator LAUTENBERG. Things slipped through the safety net that are hard to comprehend—whether it was Hazlewood's conduct, whether it was the Alyeska plan, whether it was your back-up contingency plan, things didn't work. One of the things that has happened is that this credit card, which was the symbol of trust and confidence for millions of Americans who relied on Exxon to do their share, has now become a symbol for something else: complacency, disregard for the environment.

Mr. Stevens, you are president of a giant company. One of the things that you are going to have to do is work very hard to persuade the American people that this card is something that they once again ought to put their faith in.

Senator BAUCUS. Thank you very much, Senator.

Senator Reid.

Senator REID. I think one of the most graphic illustrations we have had this morning has been that of Chairman Baucus when he presented this so-called "plan."

It is very typical for large companies—and I have to say government does it, too—if it is big, it is good. This is big. But if you really look at it, it doesn't have anything in it.

I think that we spend a lot of time talking about this plan. In fact, Mr. Henman said the plan was adequate; Mr. Stevens said it isn't. I don't think we should take a vote on that, because I think Exxon would win on that one.

I think also that we have to acknowledge here, Mr. Stevens, that simply saying enough times that the job done after the spill was outstanding doesn't make it so. I think it is quite revealing what one of your employees, Don Cornett, said. I mentioned this earlier this morning. When he was talking about Exxon and the spill he said, "It's just like any normal expense of doing business. If it"—the cost of the cleanup—"gets to the consumer, that's where it gets." I think that is how the American people feel.

In my office I have had scores of letters—hundreds of letters, I guess—regarding a bill that I introduced. This isn't from Nevada. This is from places like Louisiana and Texas—people that know their States produce a lot of oil.

The press release saying you are sorry is nice, but it doesn't solve the problem. To say that this plan was approved by the State of Alaska—the State of Alaska is a very, very small State and it doesn't have the resources to match the resources of Exxon. I know, I come from a relatively small State. When we start dealing

with large insurance companies and oil companies, we are really put at a disadvantage.

Does Exxon have insurance coverage to pay for the cost of this spill?

Mr. STEVENS. Since we don't know what the spill is going to cost us, I can't say whether we have coverage or not. We have some insurance coverage resulting from a number of cooperatives, in which we have been involved for a number of years on pollution and indemnity insurance. So, yes, we have coverage possibly up to $400 million.

Senator REID. So basically the cost, up to $400 million, will not be borne by Exxon?

Mr. STEVENS. I don't think that can be considered clear at this point. That will probably take years to determine.

Senator, if I might comment on the first part of your comment, I said that the plan, in my view, was not adequate. There are lots of reasons for that. I'm not trying to shift blame or point a finger at anybody else. There was another question asked, and that is: confronted with the genie out of the bottle—as the Secretary said this morning—how did Exxon react? I commented on that.

Now, if you want to ask me the third question, which was inferred in your statement, and that is: did that handle the problem satisfactorily? The answer is: no, it did not. We have a hell of a mess on our hands.

With respect to Senator Lautenberg's comments about the Exxon image, if you will, all we can do at this point is what we are doing, and that is deal with the consequences responsibly and to the best of our ability, both in terms of the immediate cleanup, as well as trying to assess and address the longer-term ecological, as well as the human impacts of it. That is what we are doing.

Senator REID. Mr. Stevens, is there a fund accumulated by oil companies to help pay for cleanup or compensation? You mentioned it a little bit here. Explain that situation.

Mr. STEVENS. The Trans-Alaska Pipeline Authorization Act set up a fund called a TAPAA fund which was set at a cap of $100 million. All of the shippers paid five cents a barrel until that fund reached $100 million. That fund, as Senator Stevens I believe commented on earlier today, with interest has now grown to the $250 million to $275 million league.

It is available to pay, if you will, for the cost or all of the damages associated with any spill of Alaskan crude anywhere—that would include the lower 48 as well—up to $100 million per incident.

Senator REID. And, in addition to that, or in conjunction with that, there is insurance coverage?

Mr. STEVENS. Each individual company——

Senator REID. I understand that.

Mr. STEVENS [continuing]. Carries its own, but——

Senator REID. We're talking about the——

Mr. STEVENS [continuing]. The two interact, so you don't add them together.

Senator REID. And with the insurance company or companies involved, does Exxon have a deductible?

Mr. STEVENS. Well, to some extent we are self-insured on part of this.

Senator REID. I see.

Mr. STEVENS. For instance, vessel damage and repair and loss and cargo loss. We're self-insured. We have no insurance on that.

Senator REID. But as far as the damage to the people of the State of Alaska—as the Governor and you indicated there are adjusters or agents on board in various places in Alaska, and they are actually insurance agents. They are not paying out Exxon's money, but from the insurance company.

Mr. STEVENS. No, sir. Quite the contrary. In order to be sure that our good name is properly represented to the people that are impacted here, we have insisted on doing that ourselves.

Senator REID. And then you'll get the money back from the insurance companies?

Mr. STEVENS. We're dealing with the problem on the ground to mitigate the impact on the people of Alaska. We'll worry about the insurance companies later.

Senator BAUCUS. Thank you very much Senator.

We don't have a lot of time here. I have two quick points—one question and one statement.

The first goes to when and the degree to which Exxon did or did not prefer that the Federal Government become involved. You heard this morning that there is some question about legal liability. That goes to whether Exxon asked for Federal take-over or not. Could you just shed some light on that very briefly, please? I would appreciate it.

Mr. STEVENS. The latter question first: no, we did not ask for the change that was made on that Friday. But, in some ways, it was not that much of a change, as Secretary Skinner indicated this morning.

The on-scene commander was the Coast Guard. Admiral Nelson from Juneau was up there within a day or so. The Coast Guard was very helpful in marshalling military air transport to get big equipment from all over the U.S. They were involved very much from the first day.

Admittedly, following the President's announcement, it has become more hard-line, if you will.

Senator BAUCUS. What about federalization, though? Did the company ever ask for federalization?

Mr. STEVENS. No, sir.

Senator BAUCUS. Not ever?

Mr. STEVENS. We accepted responsibility and moved rapidly to fulfill the commitment that goes with that.

Senator BAUCUS. Is it the company's position that there would be less liability with federalization?

Mr. STEVENS. We have not worried about liability. We have worried about meeting our responsibilities.

Senator BAUCUS. It really goes to an observation. The thought occurred to me as Senator Lautenberg was addressing the question with you about Captain Hazlewood and Mr. Iarossi about the supervision, and I guess that there is a fleet operations commander who has direct responsibility for supervising Captain Hazlewood. I guess the point is that—and this has been made before—in some

other countries—Japan, for example—when there is a major catastrophic event the president of the company resigns because he is so humiliated.

Senator CHAFEE. Commits suicide.

Senator BAUCUS. That was the option. But the point is, that should not be taken lightly, because that has tremendous positive psychological effect within the company. I wonder if American people—and maybe even Exxon employees—feel that well, sure, it is easy to fire Captain Hazlewood. He's dispensable. Just fire the low-level employee, Captain Hazlewood, but don't worry about or don't reprimand or don't fire the fleet operations commander, don't fire the fleet operations commander's supervisor, don't have the president of the corporation or a sub-corporation within the major corporation voluntarily resign.

It just says something to me, frankly, that, just from what I am hearing this morning, to a large degree, people tend to be pointing the finger at the next guy—he is more responsible, it is his fault—rather than accepting more of the responsibility for what happened. I know the company is very concerned about its reputation. All companies are worried about their reputation. All Senators are worried about their reputation. But I must tell you I get the feeling that if there is a little more accepting of responsibility, not so much by words, but by deeds—more by deeds than by words—that the company's reputation would be more along the lines that it is looking for.

Mr. STEVENS. Senator, I would hope that the deeds that we have performed over the three and a half or four weeks since this happened speak very eloquently to the point you are making.

Let me tell you, in terms of personal distress—myself and I'm sure I speak for the president of our shipping company, and for some 20,000 other Exxon men and women in the U.S. company—no one could be more distressed. It is not a reputational thing; it is a problem that we have caused through some mistakes. It should have never happened. We are responsible, and we are committed to doing what we can to set the matter right.

Senator BAUCUS. Thank you.

Senator Chafee.

Senator CHAFEE. One quick question of Mr. Iarossi. And, by the way, the crack about suicide I'm not recommending to anybody.

You were quoted in the "Anchorage Daily Times" of saying, on Sunday, "We weren't even up and running until 12:00 yesterday." That was on a Monday, referring back to Sunday. Is that an accurate quote? What did you mean?

Mr. IAROSSI. It was actually Sunday night. It was in the response to——

Senator CHAFEE. In the Monday paper, I guess.

Mr. IAROSSI. Yes. Monday paper, Sunday night press conference. The question I was responding to was, "Why wasn't a boom put around the ship immediately?" And I said, my first response was that I wasn't the right party and really couldn't answer that. And then the questioner persisted, "Why can't you answer?" and I said, "Because we weren't even up and running until 12:00 yesterday" which was Saturday, and that was our operations center.

We took videos, and I have all that, and that was exactly the question sequence. What I was referring to was the fact that we had not been in place—"we" meaning Exxon—and I was trying to say that we were not the party to answer what happened in the first 12 hours. But I did say that, and that was the answer.

Senator CHAFEE. I'm not quite sure why you're not the party to answer what happened in the first——

Mr. IAROSSI. Because we weren't there, Senator. That's what I was trying to explain to the reporter.

Mr. POLASEK. In the first 12 hours we responded and we went out to respond with the boom and the equipment that we had. We didn't boom the vessel initially because the priority was set as lightering, which meant bringing another vessel up alongside.

Senator CHAFEE. Which means you can't use a boom——

Mr. POLASEK. Until you bring the vessel up alongside, because the activity is there. The priority was set for lightering and saving the vessel.

We deployed our boom to protect the Bligh Island area and begin to contain the leading edge of the spill. That evening, Friday night late, we put a boom from the stern of the ship to Bligh Island Reef to deflect the oil that was still coming off the ship into the main channel and disburse it the next day.

The next day we brought that boom around to boom the ship after they brought the lightering vessel alongside.

So the decision was driven by the need to lighter the vessel.

Senator CHAFEE. Well, one thing that comes out of this, as far as I am concerned—and we touched on this earlier—is that when everybody is in charge, nobody is in charge. You say you go to get permission on the dispersants from the State of Alaska and from the Coast Guard. What we're trying to do in these hearings is to find out what we ought to do in the future, and I think one of the key things in the future is to have somebody in charge—somebody, so that when the use of the dispersants isn't approved, we can say, "Then why didn't you do it?" instead of everybody saying somebody else couldn't get their opinion.

Now, the next question I'd like is—perhaps you can do this in writing, and maybe Mr. Iarossi would be the best one: is it feasible for our tankers to carry booms aboard them with small boats to set them up?

Mr. IAROSSI. I'd like to come back in writing (see p. 129), but I'll give you my opinion right now.

Senator CHAFEE. How big a crew do you have on one of these tankers? Is it 35, 30?

Mr. IAROSSI. The crew on this tanker was 20. It was a very modern tanker, and very highly automated. But I don't think a vessel that is on the reef is the correct platform to be trying to put out boom and skimmers and that type.

The activity going on on the vessel was totally to try to save the vessel at that time. If we had 50 people on there, they would have been totally involved in that. I don't think the vessel on the reef is the correct platform for trying to mobilize response equipment.

We will come back to you with more thought on that, Mr. Chafee.

Senator CHAFEE. Thank you.

Thank you, Mr. Chairman.

Senator BAUCUS. As you can tell, there is a lot of ground here that we would like to cover but don't have the time. We'll submit questions for all of you, and I do want to thank you for taking the time to come testify before us today. Thank you very much.

Mr. STEVENS. Mr. Chairman, we do have this videotape.

Senator BAUCUS. Thank you very much. We appreciate it very much.

Our next panel includes Ms. Michelle O'Leary with the United Fishermen of Alaska, and Doctor Riki Ott, Cordova district, United Fishermen of Alaska. We also have Mr. Mike Wenig, who is a staff attorney for Trustees for Alaska, and Mr. Michael L. Fischer, Executive Director of the Sierra Club.

Ms. O'Leary, why don't you begin?

Ms. O'LEARY. All right.

Senator BAUCUS. We appreciate your taking the time to come here. You have come a long way, and we are very much interested in what you have to say.

STATEMENT OF MICHELLE HAHN O'LEARY, CORDOVA DISTRICT FISHERMEN UNITED

Ms. O'LEARY. The people in Cordova felt it was real important that I come, because we've got a real war going on up there and we felt it was time that you knew what was happening. We hoped that you would be participating in the war that should be going on down here so it never happens again. I see that you are, and I'm very relieved and thankful.

My name is Michelle Hahn O'Leary. I am representing the Cordova District Fishermen United. I have been in Cordova since 1974, and I've been commercial fishing since that time. I hold a herring pound permit, which is a limited entry permit, as does my husband. That fishery was cancelled. I also crew on a sac roe seiner. That fishery was cancelled. I also have wild kelped for many years in the past, and off and on I've participated in that fishery. That fishery was cancelled. I also have tendered in the past in Prince William Sound for both salmon gillnetting and salmon seining, and I also have halibut fished for three years in Prince William Sound. I have sac roe seined herring in Togiac on our own boat for three years. And I also hold a Bristol Bay salmon driftnet permit.

Along that line, I'd also really like to encourage you all to consider buying back the Bristol Bay oil leases so that we don't face this situation there, as well.

I have a few documents here I'd like to submit for the record, if I could.[1] I hear the statement over and over again that nobody thought this would happen. That's simply untrue. Right here I hold the report proceedings for the House of Representatives Subcommittee on Fisheries and Wildlife Conservation, the Committee on Merchant Marine Fisheries. This is the testimony of the Cordova District Fishermen in 1971 saying that this would happen, and all the concerns that have been raised today are raised in this, saying that they should have been addressed before the pipeline was built.

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[1] The documents referred to have been retained in committee files.

Instead, we got, as you have so noted, a contingency plan that's not worth its weight, and an oil spill that's not being cleaned up.

Again, here is another document from 1977 where representative Keith Specking from Hope, Alaska, came to Cordova at a meeting that the oil industries were at. Mr. Cornett, representing Exxon, was there. Representative Specking went through a whole scenario that is documented in this paper here of a fully-loaded tanker in a bad storm going up on Bligh Reef and having the hull ripped open.

Senator BAUCUS. On Bligh Reef?

Ms. O'LEARY. On Bligh Reef. It is right here. The scenario is almost exactly the same, except that we had flat, calm weather. There wasn't a ripple out there.

It was hard to pull myself away to come here. I wish I had more time to prepare, but I guess Alyeska and Exxon had 16 years to prepare for this, and they weren't prepared, so I guess I shouldn't feel too bad about it.

What we've got happening up there is sort of like an inverted pyramid, if you will. We see Exxon at the top and Alyeska at the top. They have multi-layers of management that are very difficult to get through, and they feed down to this little tiny point at the bottom that has a few workers and a little bit of equipment.

If you look at the fishermen on the reverse side, we have a huge pyramid with the base being the fishermen in the field doing the work, observing what is going on, and it tapers up to a point that is interacting with the Exxon management.

So the fishermen really have a good hand on what is actually occurring out there in reality with the clean up and recovery attempts, as opposed to what Exxon has occurring on paper.

There has been a lot of talk about the boom deployment. At this point, as of today, there is only 53 miles of boom in place, yet there is over 350 miles in Prince William Sound, alone, of beaches that are heavily contaminated, with an additional 450 miles of beaches with varying levels of contamination. There are also miles in the Gulf of Alaska that are now contaminated.

This boom that is there, much of it is only fit for Walden Pond. It is not high-quality boom. It is low-quality boom. This should have been looked into years ago. There should be high-quality boom available, and it simply wasn't.

The fishermen immediately, on the day of this spill, organized their boats. At 6:30 in the morning I received a call at my house alerting me to this spill from a fellow fisherman in Seattle. We immediately called the head of the Cordova District Fishermen United, and within a few hours we had 20 boats ready to go out. By the afternoon we had 50. We were willing to set up and organize the fishermen, the fleets in Whittier, Valdez, Seward, and Homer to help us, as well.

The boom material that was eventually put around the tanker wasn't put around the tanker until well into the early morning hours of the second day or the start of the third day. We had fishermen trying to hold that boom around the tanker. The boom continually fractured and broke, and oil went underneath that boom continually. Yet, in the press reports, Exxon continually said that that boom was in place and it was doing its job when, in fact, it

was broken and severed and wasn't even in place for many days after they had said it was.

As far as the skimmers go, as of April 10th they said they had 39 skimmers in the sound working with 40 more on the way. I talked to fishermen yesterday who flew in Exxon's helicopter with Exxon personnel looking at the sound, with the DEC helicopter looking at the sound, and with the NOAA helicopter looking at the sound. They could only find three skimmers in all of Prince William Sound that were working. Three skimmers. And two of those skimmers were skimming water, not oil, because they had no airplane direction, no monitoring overhead.

Any fisherman can tell you—and they have told Exxon—its real similar to spotting herring. You've got to have an airplane directing those skimmers. That was proven years ago down in the Santa Barbara spill. It's nothing new, and yet that problem is still not being addressed and skimmers are still skimming water.

Another issue is the claims. I have been working extensively with Mr. Cornett and Don Marsden, who is the head of Crawford and Company in Valdez—he's heading it up in Valdez, and he has been hired by Exxon to run the claims. Very early on in a press conference Mr. Cornet said that there was $10 million being made available to the fishermen so that none of us would have to suffer the loss of our homes. Excuse me, not to the fishermen, but to the communities affected, that anyone with a claim would be able to get into this money. That was put in the bank and there was no means of getting it out. They hadn't come up with the proper claim forms. Still, to this day, the proper claim forms are not lined up. So it is very difficult for fishermen, who are the primary claimers, as Exxon labels us, to go in and get a claim and fill it out without basically signing away our rights to at least 1989.

I have been working extensively with them to leave the 1989 claims open. It has been very difficult. They have been going back and forth with their forms to Houston, and it has been a very slow and painful process with no near-future settlement, as I can tell.

Again on those claims—and this is a real key issue, and I just talked again with Exxon representatives here, and it has been stated that they are going to not settle any secondary claims, that those will have to go through the court process. Well, the economy of the entire community of Cordova is 100 percent based on fishing. Because of that, we have virtually no secondary claims in Cordova. They are all primary claims. And yet they're telling us that the best way they feel to get money back into the community is to pay the fishermen. Well, only X amount of the fishermen live in Cordova. The rest of the fleet comes in from outside—from Seattle and other parts around Alaska. I believe, for instance, in herring over half the permits are held in Cordova, and the others come in from outside.

Along with them comes floating processors that have huge crews on them to freeze and tender these fish. Then we have tendermen and their crews that carry the fish from the boats that seine them to the processors. And then we have spotter pilots spotting for the herring fleett. We have cannery workers that are working at land based canneries. We get approximately 1,500 people that sit in Cor-

dova and wait for the herring season to happen, and they spend their money there while they are waiting.

Then the city receives a raw fish tax from the sales of these herring, and that hasn't been addressed, either. The entire economy of Cordova spins on fish, and it is not being addressed at all by Exxon. So to say Exxon is taking care of our needs is totally and completely false.

Senator BAUCUS. Thank you very much, Ms. O'Leary.

Doctor Ott, do you have a statement?

Ms. OTT. Yes, I do.

STATEMENT OF RIKI OTT, CORDOVA DISTRICT, UNITED FISHERMEN OF ALASKA

Ms. OTT. My name is Riki Ott. I'm a fisherwoman from Prince William Sound, and I own a salmon drift gillnet permit, which I have fished commercially for four years. I have also longlined for halibut in the southwest district, which is the part hardest hit by the *Exxon Valdez* oil spill.

I am a resident of Cordova, and I am currently serving on the board of the Prince William Sound Conservation Alliance, the Copper River Fisherman's Co-op, the Cordova District Fishermen United, and the United Fishermen of Alaska. Today I am speaking on behalf of the United Fishermen of Alaska as chairman of their Habitat Committee and on behalf of CDFU.

My training is in marine biology and fisheries. I have a masters in oil pollution and a doctorate in sediment pollution. Because of my background, I was the first fisherman flown to the scene by CDFU.

What I saw at about 9:00 in the morning on Friday was that there was no effort at containment or recovery of the oil after nine hours of the spill. That was the most amazing thing to me.

Also, we flew around the spill and it took a total of eight minutes that first day. Now it takes over six hours.

I need to stress that during the first three days of the spill the weather was absolutely ideal for mechanical cleanup. This should have been the easiest oil spill in the world to clean up. The spill was done inside in protected waters, it was flat calm, and the equipment, in theory, was available. The spill was only hours away from Alyeska.

In fact, the weather was so perfect for mechanical cleanup that dispersants would not have worked, because dispersants need a churning, mixing action to help disperse the oil.

Also, I'd like to say that, as far as mechanical equipment goes, there were skimmers in Norway that exist that can skim with the capability of 10,000 barrels an hour. Now, this is stuff that should have been at that terminal, because if you multiply 10,000 barrels an hour by 24 hours you get the entire oil spill cleaned up in the first 24 hours.

Instead, the oil industry made a strong push for using dispersants. Before I get into dispersants I do want to say that the contingency plan states that Alyeska will direct cleanup operations of spills, and not only will they direct operations, but the cleanup operations will be conducted by Alyeska in such a manner as to not

require assumption of control of such cleanup operations by Federal and State officials. That's Alyeska.

So the oil industry made the strong push for dispersants. If dispersants were a miracle cure, they would be widely accepted and utilized all over the world, and this is simply not the case. They are a very emotionally-charged issue. That's why the zonation exists in Alaska—zones 1, 2, and 3. Zone 3 areas are environmentally sensitive areas that need a lot of thought before dispersants are used in those areas. Use of dispersants is a tradeoff. It increases the toxicity of oil to some animals, and may decrease it to other animals.

For example, dispersants also disperse natural oils in the fur of sea otters and in the feathers of marine birds. Dispersants increase the toxicity of oil to animals in the water column because it puts the oil down into the water column now instead of just floating up at the surface—and the animals in the water column that we are primarily concerned about are the fish and the fish food: the zooplankton happen to be the basis of the marine foodweb that essentially feeds all the marine animals.

Also, dispersants are not effective in cold water and with Prudhoe Bay crude. In fact, one of the leading experts in the world—this person is in Canada—in his cold-water laboratory tests of dispersants on Prudhoe Bay crude, the dispersants were ten percent effective under ideal laboratory conditions, and one would expect less than this in the field.

In the scenario that was presented with dispersants, yes, they have to be tested first to see if they are effective, and those tests did happen on Friday (March 24). And you were correct: those dispersants weren't effective because Exxon only had helicopters with buckets and the helicopters weren't able to apply the dispersants effectively into the oil. So Exxon had to get planes in. Exxon got these planes in on Sunday afternoon and they were ready to go then. The tests did show that dispersants could be effective during Sunday afternoon tests, but by Monday morning the winds had picked up and the oil had shot off into environmentally sensitive areas.

So what are we left with? We're left with, right now, approximately 1,400 miles of beach, a distance roughly equivalent to Boston to the tip of Florida, that is plastered with oil. This oil weathers extremely slowly in cold temperatures. It also biodegrades extremely slowly in cold temperatures, and therefore it is extremely persistent. This oil is going to leach out of the gravel beaches—it is ground very deeply into the gravel—and it is going to repeatedly contaminate the near-shore and inter-tidal areas.

The inter-tidal area is a very critical habitat—especially in the spring. We have got herring coming in that are trying to spawn in the shallow water on the kelp. Salmon fry are migrating out. All juvenile stages of fish are extremely sensitive to hydrocarbons because these hydrocarbons are concentrated in their lipids.

Senator BAUCUS. I'm going to have to ask you to summarize, if you can, please.

Ms. OTT. All right.

I would like to say that the young of many commercially harvested species do not reach harvestable age or sexual maturity for

many years, so the full effects of this spill are not going to be felt for many years into the future.

Also, according to the TAPS legislation, Alyeska is responsible for rehabilitation of natural resources. The problem is that Alyeska already has a history of not doing things they said they would do. They have a terminal that is not built the way they said they would build it, and they are not operating that terminal the way they said they would operate it. So can we expect them to rehabilitate our environment?

We have a lot of suggestions, and perhaps we can get into them with questions about what can be done to prevent this type of thing from occurring in the future.

Thank you.

Senator BAUCUS. On that final point, if it is not fully covered by the questions, I would ask you to submit a list of your recommendations for the record. (See written statement, p. 171.)

Frankly, early this morning I did read your statement, and you do have a whole list. In fact, I turned to the person next to me and said this lady has really thought a lot about this and has a lot of good ideas. It was a good list.

Mr. Wenig?

STATEMENT OF MICHAEL WENIG, STAFF ATTORNEY, TRUSTEES FOR ALASKA

Mr. WENIG. Thank you, Mr. Chairman.

My name is Mike Wenig. I am a staff attorney with Trustees for Alaska, which is a non-profit environmental law firm based in Anchorage. We provide legal representation to other environmental groups in the State. In the course of fulfilling that duty we have just submitted, along with the Sierra Club Legal Defense Fund, 60- and 90-day notices of intent to sue Exxon under the Clean Water Act and RCRA for violations of those statutes regarding this spill.

The focus of this hearing has been on fundamental lessons from the spill, but all we have really talked about are the specifics of the adequacy of the plan and the monitoring of the drinking habits of pilots, but those lessons are really only the tip of the iceberg. The rest of the iceberg involves two other lessons.

The other lessons are, first, that the spill resulted not just from a few small lapses in the regulations, but from what is really a pervasive governmental attitude that the oil industry should be given breaks every step along the way. If we really want to change the oil industry's attitude toward environmental protection, if we really want to reduce the risks of these kind of spills, we've got to look at all of the environmental regulations and stop giving the industry a break.

The examples are set out in our testimony. Just of few of them are the petroleum exclusion in CERCLA and the exclusion for oil production waste in RCRA. There are several other examples that are listed in the written testimony that I have set out.

Senator Lautenberg raised the Exxon symbol and said that the symbol is at stake, but I submit that there is another symbol behind you that is really more important, and that is also at stake here. If we really want to reduce those risks, we've got to tell the

oil industry, in all facets of environmental regulation, that they're not going to be given breaks any more.

The other important lesson from this spill is that we have got to pay much more attention to environmental conservation, to energy conservation, and promotion of alternative energy resources. If we really want to minimize the number of sensitive environments that are going to be put at risk from oil activities, we should reduce our dependence on oil. If you look just at the Department of Energy's budget over the last eight years, you'll see that our focus has completely gone away from promoting alternative energy sources and conservation.

Senator Chafee, I believe you are the only person all morning who has mentioned conservation as one of the major lessons and one of the major directions that should be taken following this spill.

Finally, we have heard testimony from the Secretary of Transportation that nobody—not the government nor the industry—really knew how to react to this spill. All I can say is that it is not fair for us to have to come back here in 5 years or 10 years or 15 years after a major disaster in the Arctic Refuge or in Bristol Bay and hear the same lines over again. I think, given the oil industry's practice to date in Prince William Sound, I don't see how we can trust their assurances that they can do everything in a good manner and consistently with the environments of the Arctic Refuge and Bristol Bay.

Thank you.

Senator LIEBERMAN. Mr. Fischer. I gather from the advice of counsel and the waiving of your hand that you are next.

Mr. FISCHER. I'm batting cleanup, I think.

Senator LIEBERMAN. Please proceed.

STATEMENT OF MICHAEL L. FISCHER, EXECUTIVE DIRECTOR, SIERRA CLUB

Mr. FISCHER. Thank you, Senator Lieberman and Senator Chafee. I am Michael Fischer, Executive Director of the Sierra Club, a national environmental organization with more than 500,000 members now.

It is an interesting sidelight that of all of the States there is a higher percentage of Sierra Club membership in Alaska than in any other State on a percentage basis, except only for California.

Our members, like all Americans, have been really horrified by this disaster. One of the indicators that we have is the number of phone calls that have come in at our offices angry at us for not doing more. Basically there is free-floating grief and anger among Americans. So our chapter in Anchorage has set up a phone bank manned by volunteers. We have received more than 1,200 phone calls to date from people basically needing some counselling to give vent to their anger. It is heart-rending to listen to the stories of the volunteers, and I know that my colleagues to my right must have experienced that personally, as well.

The Sierra Club has entered into an agreement with the State of Alaska to help coordinate volunteer work should general volunteer

work be judged effective and helpful for this summer and in the future.

I brought a little oil, too. This, instead of coming from the tanker, was collected on the beaches by the Chair of our Alaska chapter, Michael Ostrogorsky. That's oil, as Mike indicated, which is still on those beaches and in the water and represents a violation of law. We have joined with his organization in the notices that we intend to file lawsuits on that.

Let me summarize the written submittal that I have given to you, Senator, and just hit some key points.

First, we are very pleased that this committee, with Mr. Baucus' leadership, has established this hearing. We hope that you will see this as the first step of a very in-depth, fully-staffed investigation. This is not just a tragedy, it is a scandal. There are elements of scandal involved, elements of cover-up, elements of misrepresentation, elements, yes, of callous disregard for the public interest. I believe we heard some of that today.

As my statement indicates, I am the former executive director of the California Coastal Commission. I held that post for almost eight years. As the State official responsible for regulating the activities of the oil and gas industry in California's coastal zone, I had many dealings over the years with representatives of Exxon. I testify to you today that the tragedy on Bligh Reef is the natural outcome of Exxon's consciously adopted corporate style. They undertake their daily activities with an aggressive, unsympathetic, uncooperative, hard-nosed attitude toward environmental regulators and environmental regulation.

In their own industry, by their own peers, they are known as the company that would rather fight than win. I submit to you, based on my experience, that that oil spill contingency plan didn't get as weak as it is by accident.

Just a small example from my experience: when exploratory drilling started in the Santa Maria Basin, just up-coast from the Santa Barbara Channel, Exxon fought the imposition of automatic collision warning and avoidance devices, and they fought putting a 24-hour watch on the radar, even though that is a stormy area known as the Cape Horn of the Pacific and is frequently foggy, and even though there is heavy coastal shipping traffic in the area.

Unfortunately, in that case, and in others, the Coast Guard supported Exxon in a demonstration of misguided mission and severe client capture. Fortunately, other oil companies took the lead and did accept the conditions that our Commission imposed upon them, and Exxon reluctantly followed suit.

But my point here is that your committee should investigate the issue of client capture and conflicts of mission not only within the Coast Guard, but within the Department of Interior's Minerals Management Service. I have personally seen many examples of all too cozy relationships.

With the grounding of the Exxon Valdez, their corporate reputation and image have suffered—and with full and very good reason. The Prince William Sound disaster was not a fluke, nor was it an isolated incident. Only two months ago the Exxon Houston ran aground filled with Alaskan oil offshore Oahu, and two weeks ago

the Exxon Wilmington went aground in the mud of the Mississippi, and there are other such examples.

Senators, let me conclude with a couple of steps that I would suggest that you at least begin with.

First, please do establish a joint committee—or, if not a joint committee, coordinate efforts with the other side of the Hill. Have a fully-staffed investigative operation.

Second, enact legislation which places the Arctic National Wildlife Refuge off limits to oil exploration and development. Despite what President Bush has said, there is a direct, inescapable connection between the Arctic and Prince William Sound. They are connected by the same regulations, the same politics, the same contingency plans. We've got a Beaufort Sea contingency plan which is weaker than Prince William Sound. It calls for 1,000 feet of boom and one skimmer in the Beaufort Sea, a much more hazardous and equally rich area.

Third, the Federal Government should buy back the oil leases. Bristol Bay makes Prince William Sound pale by comparison, as incredibly rich as Prince William sound is. We're talking about orders of magnitude of richness and beauty and biotic diversity. We can't afford anything the tenth the size of this spill in Bristol Bay, but Federal policy has placed Bristol Bay at risk. The price of the leases just last year was under $100 million. Part of Exxon's reparations ought to include the provision of $100 million to buy back those leases.

Finally, you should look very positively on legislation which places other sensitive off-shore areas—the Florida Keys, George's Bank, off-shore California—into a marine sanctuary.

And, as Mike indicated, as well as Senator Chafee, the heart of what we ought to be looking at is energy conservation. This nation needs an energy policy which doesn't continue to try to drain American dry first, try to rip off our most beautiful, most sensitive wilderness areas just to fill gas-guzzling automobiles. We need energy conservation, we need energy policy leadership.

Senators, thank you very much for your time.

We are angry. We know you are as well. Anger is a natural emotion that follows after grief, and all of us are grieving over the loss of life in Prince William Sound. Anger helps us all, only if it is followed by effective action. I know that you intend to take effective steps. We will help you. Thank you.

Senator LIEBERMAN. Thank you, Mr. Fischer. And thank you all.

Mr. Fischer, if I remember correctly, the Sierra Club is one of the groups that has been asking the President to go to Alaska to view this tragedy personally. Do you think that would really make a difference now? And, if you do, why?

Mr. FISCHER. I think it would make a difference because everything that I hear from Sierra Club volunteers and others who are in Alaska is that the Federal presence is still not sufficient. The full resources of the Federal Government, whether it is the Marines or the Army, ought to be there—I think it is a comment on our preparedness and upon the resources that our federal departments have failed to produce that we now have the best piece of machinery that has just steamed into the waters from Russia. Has America placed the resources needed to address this calamity? No.

The President's going to Alaska, we believe, would heighten the importance of this issue in his mind and would send a better signal.

I was speaking with Bill Reilly this morning just after his testimony, and he said that there is great inter-departmental jealousy. They are angry that EPA is involved at all. So if we are experiencing sort of Federal tension, the President going there would send a signal—particularly if he put his hand around Bill Reilly and the Admiral and said, "Cooperate, everybody, and get those planes up here."

Senator LIEBERMAN. Let me ask this, because you said something that was suggested earlier. The Governor talked about this incident changing the political chemistry of the State, and you talked about the cozy relationship between Exxon and others involved here. I wonder, from yourself—and also particularly from the three others who were on the ground or in the water there in Alaska—were there situations over the last several years where you or others called for particularly environmental protection steps, preventive steps, contingency plans that were not carried out that you think was the result of the opposition of the Exxon Company?

Ms. OTT. Yes. I joined the board of CDFU two years ago. Since then, I have been working on the Alyeska case, which is what the fishermen call it. In 1985, it came to the attention of Cordova District Fishermen United that there were possibly environmental pollution problems at the terminal. Fishermen have been very vocal critics since 1985. They threatened a lawsuit with Charles Hammel, and never filed. But, because of that lawsuit, the matter got investigated——

Senator LIEBERMAN. By the State, or the Federal——

Ms. OTT. By EPA, DEC and also the General Accounting Office. EPA issued a compliance order, cease and desist. As a result of this, Alyeska came out with their biological treatment system.

What I'm saying is that it was looked into. There were problems that were found. Alyeska was supposed to do something about it, and they still have not. Their biological treatment system is now under fire from all directions that the methodology was misapplied, it is not working. They are still self-monitoring over there. It is a big mess.

Also, they are resisting, as Governor Cowper said, the new NPDES permit. They are operating under a 1980 permit right now. If they are so environmentally conscientious, why do they want to increase the amount of hydrocarbons in their effluent? Why are they resisting this NPDES permit?

Senator LIEBERMAN. Do you think the State and Federal Governments have been doing enough to force them to abide by these laws and regulations?

Ms. OTT. The State government budget has been slashed, especially in Valdez, which is probably not coincidental, given that 85 percent of the State's revenue comes from the oil industry. But, anyway, there is currently one half-time position working on monitoring and overseeing a facility which is the largest in the United States and through which 24 percent of our domestic oil passes each day. One half-time position.

Senator LIEBERMAN. One half-time State position?

Ms. OTT. Yes.

Senator LIEBERMAN. Which is responsible for monitoring all of the environmental implication of that operation?

Ms. OTT. Yes.

Senator LIEBERMAN. Are there Federal personnel on location?

Ms. OTT. No. They have to come in. There have been some inspections, but they have to come in. There is nobody actually there.

Senator LIEBERMAN. As far as you know, does the Coast Guard regularly board and inspect oil tankers going through that area?

Ms. OTT. I don't believe they do. EPA has contracted workers to go in and do tests, like they contracted Doctor Ihor Lysyj. He is one of the leading experts in the country on oily waste-water terminals, and his reports all show problems and suggest solutions, none of which have been followed up on.

Mr. FISCHER. In response to your initial question about Exxon—

Senator LIEBERMAN. You said something very provocative about the coziness of the relationship, and I want to ask you to define it some more.

Mr. FISCHER. Well, as a matter of fact, let me define it with an exception. We have spoken, as we have grieved about this thing, about double bottoms and why the tanker didn't have a double bottom.

Senator LIEBERMAN. Right.

Mr. FISCHER. The Coast Guard, in an exceptional move, I believe, did take leadership after the approval of the TAPS system and went to the International Maritime Consultative Organization—now International Maritime Organization—and asked for an international policy for double hulls for supertankers. The answer from the Coast Guard was: well, the IMO didn't approve it. Shucks, we tried.

What isn't said is that it was Exxon who lobbied the IMO to reject the Coast Guard's proposal for double bottoms. Now, that's an example of an exception. The cozy relationship, I would say, in my experience, is principally between the Minerals Management Service of Interior, who has both a role of promoting oil development and an environmental protection role, and they don't mix. Oil and water don't, either.

Senator LIEBERMAN. Mr. Wenig.

Mr. WENIG. Senator Lieberman, if I could just re-emphasize, the problem is not just located with State regulation in Prince William Sound or at the Alyeska terminal. The problem goes all the way up through the regulatory levels, and it applies to all activities of the oil industry throughout the State of Alaska under all of the environmental statutes. I think what we've got to do is make a conscious decision not to have this regulatory approach any more in any respect, and it is only at that point that the oil industry will really take us seriously.

Senator LIEBERMAN. Ms. O'Leary, did you want to add anything?

Ms. O'LEARY. They have pretty much covered what I had to say, except that the multiple radar stations that were supposed to be in effect—that we were all lead to believe would be in effect—were reduced down to one large station which, several years ago, was again reduced in power. I'm not sure if that was Coast Guard cut-

backs or why that was reduced, but originally there should have been radar monitoring all the way out of the Sound.

Also, there were supposed to be pilots on board all the way out through Hinchinbrook entrance until one particular incident in bad weather a pilot had a problem either getting on to the tanker or getting off of the tanker, and at that point in time the pilot station was moved back to just inside of Bligh Reef. We feel that's something that should be reenacted again and should never have been let go. If the weather is too bad for a pilot to board at Hinchinbrook entrance, then maybe the tanker should have to wait out in the gulf until a pilot can board.

Senator LIEBERMAN. Thank you.

Senator Chafee.

Senator CHAFEE. Thank you, Mr. Chairman.

Ms. O'Leary, first, your testimony was very moving, as was Doctor Ott's, on what is actually happening there. Sometimes you think that these things aren't going to be as bad as they originally appear. You think of the recuperative powers of nature, and somehow one just hopes that it has been exaggerated. But I think in this case in Prince William Sound it is worse than we ever anticipated in our wildest forebodings of this situation.

You mentioned about the willingness of the fishing fleet to respond, and I'm certain that's true. Is there any organization similar to a volunteer fire department that might be useful in the future in a little more organized fashion than currently exists? It is sort of a "come one, come all" I suppose, now. As you responded, I think you said, there were 20 vessels ready to respond, but that was by word of mouth. Is there any sort of an organized set-up you might even be thinking about?

Ms. O'LEARY. Well, it was by word of mouth, but it was handled through the CDFU. It was actually pretty well organized.

The problem with the oil industry depending on the fishing fleet to clean up their oil spill messes is that our job is fishing. If we are engaged in a fishing season, we may be out of touch with our central office—and many of us fish elsewhere in the State at various times of the year.

Also, our boats are small compared to the weather that does occur in Prince William Sound, and we've really gotten off easy on the weather. It really hasn't been addressed at all as an issue, but there are many days when our boats couldn't even be out in the Sound. So although the fishermen are volunteering and will always volunteer and will always be ready to organize and stand by, it should really fall back to the oil industry. But I'm sure, after this—let me tell you, after going through this crisis, we've got some management skills that we didn't even know we had that we could turn around and do it again even quicker, but let's hope that never happens.

Senator CHAFEE. Doctor Ott, I think in your testimony you were talking about the skimmers and the capacity of the Norwegian skimmer that could take 10,000——

Ms. OTT. Barrels an hour. And Governor Cowper had——

Senator CHAFEE. That sounds incredible. Are these monstrous vessels? What are they like? Is that 10,000 barrels?

Ms. O'LEARY. The Soviet skimmer that is supposed to come can handle 200,000 gallons an hour.

Ms. OTT. Which is 30,000 barrels over what the Norwegians have if that figure on the Soviet skimmer is correct. But Governor Cowper has, in his emergency order that is supposed to be fulfilled May 1st, requested that Alyeska have on site skimmers with the capacity of 10,000 barrels an hour.

Senator CHAFEE. Well, we appreciate all of you coming down and giving your testimony. I have worked with many of you before, and want to thank you very much.

Senator LIEBERMAN. Senator Chafee, let me just come back to that.

Did I hear you correctly that the Soviet skimmer could take in 270,000 barrels a day?

Ms. O'LEARY. I need to correct that to 200,000 gallons an hour.

Senator LIEBERMAN. Okay.

Senator CHAFEE. And that Norwegian one was gallons.

Ms. OTT. Barrels. In Governor Cowper's emergency hour it says "barrels."

Senator LIEBERMAN. Could you repeat? Was that 10,000 barrels?

Ms. OTT. Barrels an hour. They run it like a fishing boat and they just keep unloading at the back and hitching on new barges and they just keep right on going.

Senator LIEBERMAN. So we might then infer or conclude that if that piece of equipment had been on site, in 24 hours theoretically this spill could have been cleaned up?

Ms. OTT. The spill might never have reached the beaches, because the first three days of the spill it sat in the middle of the Sound and didn't really go near any beaches.

Senator LIEBERMAN. That's a very powerful statement, because it says very clearly—we've had some general conversations about whether there was enough contingency planning, enough booms around the site—but really, what you're saying now very concretely is that if this equipment had been on location, this spill would have been contained and never have reached the beaches?

Ms. OTT. Yes, also what I'm saying is that the oil industry is not committed to mechanical cleanup and containment, and that is the preferred option for the fishing industry. We want it out of the water. We don't want it dispersed down into the water column. Our option is to get it out of the water.

Mr. FISCHER. Senator Lieberman, even if such vessels were available, they'd have to be stationed every couple of hours along the coast. So, speaking for the Sierra Club, we wouldn't—we don't look to technology to solve the basic incompatibility of oil drilling in wilderness areas. Yes, better equipment should have been there and could have been there, but I tend to agree, from my experience, with what Bill Reilly and what the Alyeska person said: the technology of oil spill containment and cleanup is in its infancy and is quite primitive.

Senator LIEBERMAN. Let me focus for a minute on something—and particulary to Ms. O'Leary.

The Governor talked about the legal rights of people of Alaska to gain compensation. Two questions, really: one, is there a need for Federal help to clarify the legal rights of fishermen and others in

Alaska? Let me just leave you to that question, first, and then I'll come back to my second question.

Ms. O'LEARY. I would say most definitely there is. We're having a very difficult time trying to wade through Exxon's claims program. As I understand, I was already in Washington when this happened, but the Small Business Loan Administration has made money available but, to my understanding, that is a four percent loan, but you have to be basically destitute before you can get it. In other words, you have to be in the process of already losing your home, your boat, and so on and so forth. That will kill our community. We'll just dry up and blow away if we are faced with that scenario.

So yes, definitely, we need help.

Senator LIEBERMAN. What is happening with the claims process now with Exxon?

Ms. O'LEARY. Exxon has said they are making money available, and at this point in time some fishermen that have clear-cut claims—in other words, the closed fisheries—a black cod fisherman made his claim on about day 16, and I believe that was the first claim made. They are addressing those if you can prove that you are in dire straits.

When we get down to trying to say we need some money now, but we don't want to settle our final claim, we want the option to see what this is really going to do to us, they back off and say, "Whoa, wait a minute. We'd better send another form down to Houston here." It has been very difficult for us to wade through this.

Senator LIEBERMAN. That actually was my second question, which is: have you started to think about how we determine fair compensation? It is one thing for a fisherman to say "I spent x thousand dollars involved in a cleanup." But what is the impact on the waters, which are the source of the livelihood? What is the impact on the wildlife there?

Ms. OTT. What we're going to need, and what is ongoing in Cordova right now, is a scientific assessment program to assess the damages. We're looking at potentially a couple decade's work of quantifiable damage to our resources and to the resources in the Sound.

Our claims are going to be reasonable only if the data are reasonable, so that is what we are relying on right now—the ongoing data collection program.

Ms. O'LEARY. And this program should be on a Federal level, a State level, and also the fishermen would like funding to run a study on an independent level that isn't tied into a particular agency. Also, we feel that Cordova would be an ideal place to set this up because we have all of the marine life in front of us and the nesting grounds of the Copper River Delta at our back door to monitor the birds.

As far as being compensated for all of this, it is virtually impossible to compensate us for the impact to our lives and the environment. There are two Native communities that are entirely dependent on a subsistence lifestyle, which means that they eat and live out of the whole water column—the whole food chain. I don't know how we can compensate them, but it has to be done.

Let me tell you, when you've had your heart ripped out, when you listen to sea otters scream because they are coated with oil, compensation just can't cover it. It can't cover it.

Senator LIEBERMAN. You're absolutely right. It reminds me of the old legal concept of pain and suffering. Beyond the money you put out for a doctor or hospital when you go in for an injury, the law tries to quantify—very difficult—the pain and suffering a person has gone through, but it is very relevant to what has happened here because you have all suffered a lot of pain.

Ms. O'LEARY. One thing I would like to add to that is an immediate issue that should be addressed of community claims. The fishing communities and the Native villages—including Valdez, Homer, Seward, and Kodiak are now affected. We have just been talking about Prince William Sound, but other fishing areas—Lower Cook Inlet has had its herring season closed, parts of Kodiak has had its herring season closed, the black cod fisheries have been shut down in the Gulf of Alaska. We're not just talking Cordova any more.

I'm taking a liberty here, but I feel I could represent those fishermen and their communities in saying that it has got to go beyond the primary claims that Exxon calls the fishermen back into the community, because, frankly, if we don't have the community behind us, we can't fish. We can't get parts, we can't get food, we can't do our laundry. If we don't have the community getting money, we can't fish.

Senator LIEBERMAN. I appreciate very much the time that all of you took to come here. I want you to know that we share your anger, and I think the members of this committee feel we have an obligation to hang in there with you and do whatever we can, not only to bring fair compensation to those of you who have suffered, but to force those responsible for this tragedy to do everything they can, not just today and tomorrow and next month and next year, but in the long haul to return this beautiful and productive piece of earth to the way it was before this happened.

I thank you.

Mr. FISCHER. And avoid making the same mistake in other places.

Senator LIEBERMAN. Absolutely.

Thank you.

This concludes the hearing.

[Whereupon, at 1:55 p.m., the subcommittee was adjourned, to reconvene at the call of the Chair.]

[Statements submitted for the record and responses to additional questions follow:]

Statement of Senator Ted Stevens
before the
Committee on Environment and Public Works
Environmental Protection Subcommittee
April 19, 1989

Mr. Stevens. I appreciate time to convey to you my observations -- as an Alaskan and as a Senator -- on the disasterous oil spill which occurred in Prince William Sound on March 24.

In time we will examine the event to determine how this spill happened, and why so little was done during the first 60 hours after it occurred. During those first few hours there was an opportunity to contain the damage of this spill, but once that time had passed, the damage was basically uncontrollable. The National Transportation Safety Board is holding hearings now in Alaska on those issues, particularly the allegations of alcohol abuse on the Exxon Valdez.

The task before us, now, is to restore Prince William Sound, reduce the risk of future spills, and assure immediate and adequate response to any future marine disasters.

In this spirit, I commend the Commandant of the Coast Guard, Admiral Yost, who was sent to Alaska to coordinate the response to the spill. Admiral Yost, who served in Alaska as Commander of the 17th Coast Guard District, has made a major contribution to getting a plan for clean up in place.

Yost's presence on-site is the direct result of the President's commitment to a thorough clean up and recovery of the affected areas of Alaska. While I sought a Declaration of Emergency, which the President did not make because he was advised such action might take Exxon "off the hook", President Bush has acted as Commander in Chief to assure support for the Coast Guard's directives. Eight Senators have joined in asking President Bush to request an immediate $50 million payment from Exxon. This payment would repay the funds federal agencies have spent and will spend in supporting this clean up. These costs have

depleted agency contingency funds and will hurt other programs if Exxon does not make funds available now. That is the greatest deficiency in the existing law. Congress mandated this fund in the Alaska Pipeline Act -- yet federal and state authorities have to use taxpayer funds to meet this challenge while at the same time begging the party at fault to pay in advance their costs.

Our Alaska Governor, Steve Cowper, will appear before you in a few minutes. My staff and I have reviewed the proposals he will make, and I agree with his recommendations for --

* preventing future spills
* improving response to spills
* improving systems for assuring that emergency relief - particularly economic relief -- is immediately available to those who are injured by a spill

* reviewing the penalties for major spills, and
* a commitment to federal oil spill research.

Congress must act to assure that our nation does not put our environment at risk by failing to have the kinds of protections the Alaskans and all Americans believed we had before this terrible event. When we voted for the trans-Alaska pipeline in 1973, Alaskans and all Americans were assured the latest technology would be used to prevent spills. We were given a promise that trained crews would respond rapidly to keep damage to a minimum, should a spill occur. Those promises, we discovered on March 24, could not be kept.

In addition, I suggest measures aimed at improving the speed and effectiveness of the response to catastrophic oil spills.

There should be one plan for responding to an oil spill. And that plan should include one, single, final authority which will direct the response. The Prince William Sound clean up suffered initially because of divisions in decision-making authority. We must make clear, however, that a party at fault is not relieved of any liability by decisions made by the official holding final authority.

Every tanker should be required to carry booms and small boat, capable of quickly deploying them.

We should require in each major oil port a "spill station" ship. Firemen are ready and waiting to respond in fire stations in every area of our nation. "Spill station"

ships could provide quick response to marine disasters, beyond the capability of on board equipment.

And the commitment to oil research should include a long term Institute to study the effects of this spill in the Prince William Sound so future generations can know precisely what its long term effect is on our environment.

We should and will also examine thoroughly into the qualifications of those who command and operate tankers which carry oil in and out of our ports and navigable waters.

STATEMENT OF THE SECRETARY OF TRANSPORTATION

SAMUEL K. SKINNER

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION

UNITED STATES SENATE

APRIL 19, 1989

9:00 A.M., ROOM 216, SENATE HART BUILDING

ALASKA OIL SPILL

GOOD MORNING MR. CHAIRMAN,

THE OIL SPILL IN PRINCE WILLIAM SOUND IS ONE OF THE WORST ENVIRONMENTAL AND ECONOMIC DISASTERS THIS NATION HAS EVER FACED. THIS TRAGEDY NOT ONLY REQUIRES A MASSIVE COMMITMENT OF PEOPLE AND MONEY TO CONTAIN AND CLEAN UP THE SPILL BUT A REEVALUATION OF OUR WHOLE APPROACH TO THE WATER-BORNE TRANSPORTATION OF OIL. THAT INCLUDES REVIEW OF CONTINGENCY PLANS FOR DEALING WITH OIL SPILLS AND A FRESH COMMITMENT TO ENACTING COMPREHENSIVE OIL SPILL LIABILITY AND COMPENSATION LEGISLATION.

I WANT TO COMMEND THE COMMITTEE FOR ITS FORCEFUL LEADERSHIP IN THIS AREA. THE PRESIDENT AND I ARE TOTALLY COMMITTED TO THE PROTECTION OF OUR MARINE ENVIRONMENT AND LOOK FORWARD TO WORKING

WITH THIS COMMITTEE TO STRENGTHEN OUR LAWS, REGULATIONS AND OPERATING PROCEDURES.

I THINK THAT THE FEDERAL GOVERNMENT MOVED MORE QUICKLY AND BOLDLY THAN GENERALLY ACKNOWLEDGED AND THE DECISION NOT TO RELIEVE THE POLLUTER, THE EXXON CORPORATION, OF ITS PRIMARY RESPONSIBILITY FOR CLEANING UP THE DAMAGE IT HAS CAUSED, WAS THE CORRECT DECISION, UNDER THE CIRCUMSTANCES. NONETHELESS, THIS DISASTER HAS POINTED OUT AREAS WE CAN STRENGTHEN.

THIS MORNING I WILL BE ADDRESSING THE ADEQUACY OF THE OIL SPILL CONTINGENCY PLAN AND ITS IMPLEMENTATION IN PRINCE WILLIAM SOUND, AND THE ADEQUACY OF FEDERAL REGULATION AND OVERSIGHT IN THIS AREA.

THE CONTINGENCY PLAN FOR PRINCE WILLIAM SOUND, DEVELOPED AFTER ENACTMENT OF THE TRANS-ALASKA PIPELINE AUTHORIZATION ACT IN 1973, WAS REQUIRED BY THE STATE OF ALASKA AS A CONDITION OF THE FACILITY'S OPERATING PERMIT. THE FOCUS OF THE PLAN WAS THREEFOLD: NOTIFICATION; RECONNAISSANCE; AND SPILL CONTROL. ALL THREE OF THOSE FACTORS NEED REEVALUATION. CLEARLY, THE CONTINGENCY PLAN WAS INADEQUATE TO DEAL WITH THE ENORMITY OF THE EXXON VALDEZ SPILL. IT WAS BASED ON A MAXIMUM PROBABLE SPILL OF 74,000 BARRELS OF OIL. THE SPILL THAT OCCURRED WAS MORE THAN THREE TIMES THAT AMOUNT. FURTHERMORE, CONTAINMENT EFFORTS WERE HAMPERED BY THE RAPIDITY WITH WHICH THE OIL POURED INTO THE WATER, THE REMOTENESS OF THE LOCATION AND THE FACT THAT IT OCCURRED IN

THE MIDDLE OF THE NIGHT, AS WELL AS BY DEFICIENCIES IN THE PLAN AND ITS IMPLEMENTATION.

WITH REGARD TO ITS SPECIFIC DEFICIENCIES, WE ARE DEVELOPING A REPORT TO THE PRESIDENT IDENTIFYING EXACTLY WHAT WENT WRONG. THIS REPORT SHOULD BE AVAILABLE WITHIN THE NEXT FEW WEEKS. ALTHOUGH IT WOULD BE PREMATURE OF ME TO SPECULATE ON THE CONCLUSIONS THAT WILL BE REACHED, I WILL BE HAPPY TO MAKE THOSE FINDINGS AVAILABLE TO THE COMMITTEE WHEN THEY ARE COMPLETED.

THE PRESIDENT HAS ALSO DIRECTED A REVIEW OF CONTINGENCY PLANS NATIONWIDE, TO DETERMINE THEIR ADEQUACY IN LIGHT OF THE LESSONS LEARNED FROM THIS SPILL AND THE CRITICAL IMPORTANCE OF AN ADEQUATE AND TIMELY RESPONSE. THE NATIONAL RESPONSE TEAM, ESTABLISHED PURSUANT TO THE CLEAN WATER ACT AND THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT HAS BEEN DIRECTED TO UNDERTAKE THIS REEVALUATION OF EXISTING PLANNING AND TO REPORT ITS FINDINGS AND RECOMMENDATIONS WITHIN THE NEXT SIX MONTHS. THIS TEAM IS CO-CHAIRED BY THE COAST GUARD AND THE ENVIRONMENTAL PROTECTION AGENCY. ONE KEY ISSUE TO BE EXAMINED IS WHETHER THE MAXIMUM PROBABLE SPILL LEVELS NEED TO BE SIGNIFICANTLY INCREASED. IF THEY DO, THE CONTINGENCY PLANS WILL NEED TO BE STRENGTHENED AS WELL, TO REFLECT INCREASED MANPOWER AND EQUIPMENT NEEDS.

AS YOU ARE AWARE, WE ARE CURRENTLY ACTIVELY INVOLVED IN THE CLEANUP OPERATION IN PRINCE WILLIAM SOUND. THE PRESIDENT HAS ASKED ME TO SERVE AS HIS PERSONAL LIAISON TO THE CLEANUP EFFORTS AND TO BE RESPONSIBLE FOR MOBILIZING AND COORDINATING ALL OF THE FEDERAL DEPARTMENTS AND AGENCIES, AS NECESSARY. ADMIRAL YOST, THE COMMANDANT OF THE COAST GUARD, IS OVERSEEING THE OPERATION PERSONALLY AS THE COORDINATING DIRECTOR AND IS WORKING WITH EXXON AND THE GOVERNOR OF ALASKA. A SUBSTANTIAL COMPLEMENT OF COAST GUARD EQUIPMENT AND PERSONNEL IS ALREADY ON THE SCENE AND ADDITIONAL FEDERAL RESOURCES ARE BEING MADE AVAILABLE. I WILL PROVIDE TO THE COMMITTEE A DETAILED LIST OF THE FEDERAL RESOURCES NOW IN ALASKA. A SIMPLE, EXPEDITIOUS AND NON-EXCLUSIVE CLAIMS PROCEDURE IS BEING ESTABLISHED BY EXXON TO PROVIDE TEMPORARY ASSISTANCE TO THOSE DAMAGED BY THE SPILL. I WILL WORK WITH EXXON, THE ALASKA CONGRESSIONAL DELEGATION, STATE AUTHORITIES AND OTHER AGENCIES TO DEVELOP LOAN PROGRAMS TO ASSIST THOSE WHO HAVE SUFFERED ECONOMIC LOSSES. IDENTIFYING THE DEFICIENCIES OF ALYESKA'S CONTINGENCY PLAN, REEVALUATING--NATIONWIDE--THE ADEQUACY OF OUR CONTINGENCY PLANNING FOR EMERGENCIES OF THIS TYPE, AND COMMITTING A SUBSTANTIAL FEDERAL PRESENCE IN VALDEZ, ARE BUT THE FIRST STEP.

THE SECOND ISSUE I WANT TO ADDRESS THIS MORNING IS THE ADEQUACY OF FEDERAL REGULATION AND OVERSIGHT IN THIS AREA: SPECIFICALLY, WHETHER CERTAIN COAST GUARD LAWS AND REGULATIONS DEALING WITH

THE ISSUANCE, RENEWAL AND SUSPENSION AND REVOCATION OF MERCHANT MARINER'S LICENSES AND DOCUMENTS SHOULD BE STRENGTHENED; WHETHER FEDERAL APPROVAL SHOULD BE REQUIRED FOR ALL CONTINGENCY PLANS; AND WHETHER THE LAWS REGARDING FEDERALIZATION OF REMOVAL EFFORTS SHOULD BE CHANGED TO REQUIRE IMMEDIATE FEDERALIZATION IN ALL OIL SPILLS AND WHETHER OUR VESSEL TRAFFIC SERVICE IN THE PRINCE WILLIAM SOUND SHOULD BE IMPROVED.

UNDER CURRENT STATUTES AND REGULATIONS, ONCE AN APPLICANT FOR A LICENSE MEETS CERTAIN ELIGIBILITY CRITERIA AND HAS PASSED A SERIES OF COAST GUARD WRITTEN EXAMS, HE OR SHE IS ISSUED A LICENSE THAT IS VALID FOR A TERM OF FIVE YEARS, BARRING DISCIPLINARY ACTION. THE COAST GUARD CAN ALSO INITIATE PROCEEDINGS TO REVOKE OR SUSPEND A LICENSE IF, WHILE ACTING UNDER ITS AUTHORITY, THE LICENSE HOLDER VIOLATES A LAW OR MARINE SAFETY REGULATION, OR IS FOUND TO BE NEGLIGENT OR INCOMPETENT, OR GUILTY OF MISCONDUCT. EXCEPT FOR CONVICTION FOR A DANGEROUS DRUG OFFENSE OR USE OF OR ADDICTION TO DANGEROUS DRUGS A SEAMAN'S LICENSE CANNOT BE SUSPENDED OR REVOKED EXCEPT FOR CONDUCT WHICH OCCURS WHILE HE OR SHE IS ACTING UNDER THE AUTHORITY OF THAT LICENSE. A LICENSE MUST BE RENEWED EVERY FIVE YEARS, AND THE COAST GUARD CAN CHOOSE NOT TO RENEW A LICENSE IF A DETERMINATION HAS BEEN MADE THAT THE HOLDER DOES NOT HAVE "A SUITABLE CHARACTER OR HABITS OF LIFE." IN FACT, THE COAST GUARD HAS CHOSEN NOT TO ISSUE A LICENSE ON THE BASIS OF DRUNK DRIVING CONVICTIONS. FURTHERMORE, A DETERMINATION OF FALSE

STATEMENTS ON THE RENEWAL APPLICATION WOULD BE GROUNDS FOR NOT RENEWING. DURING THE RENEWAL PROCESS, THE LICENSEE IS ASKED TO PROVIDE INFORMATION CONCERNING ARRESTS. HOWEVER, THE COAST GUARD CURRENTLY DOES NOT HAVE ACCESS TO COMPUTERIZED INFORMATION SUCH AS THAT STORED BY THE NATIONAL DRIVER REGISTER OR NATIONAL CRIMINAL INFORMATION SYSTEM. THE COAST GUARD CURRENTLY HAS ACCESS TO THE FEDERAL BUREAU OF INVESTIGATION'S RECORDS AND USES THEM FOR INITIAL APPLICANT REVIEW, BUT THIS IS A LONG AND TEDIOUS PROCESS.

WE PLAN TO PROPOSE LEGISLATION SIMILAR TO THAT RECENTLY PASSED FOR THE AVIATION AND RAILROAD INDUSTRIES AUTHORIZING ACCESS TO THE NATIONAL DRIVER REGISTER AND ARE CONSIDERING WHETHER OTHER COMPUTERIZED FILES CAN BE USEFULLY EXPANDED TO THE COAST GUARD CERTIFICATION PROCESS FOR LICENSED SEAMEN. WE ALSO PLAN TO PROPOSE LEGISLATION TO AUTHORIZE THE COAST GUARD TO INITIATE PROCEEDINGS TO SUSPEND OR REVOKE A LICENSE FOR RELEVANT MISCONDUCT INVOLVING ABUSE OF ALCOHOL OR STATE ACTION AGAINST A MOTOR VEHICLE OPERATORS LICENSE. THIS IS THE SECOND STEP NEEDED TO INSURE ADEQUATE PROTECTION OF OUR MARINE ENVIRONMENT FROM THE DAMAGE CAUSED BY OIL SPILLS.

THE COAST GUARD CURRENTLY REVIEWS AND APPROVES THE OPERATIONS MANUALS FOR OIL TERMINALS THAT INCLUDE PROVISIONS FOR POLLUTION RESPONSE AT THE TERMINAL. THE COAST GUARD CAPTAIN OF THE PORT IS ALSO REQUIRED TO MAINTAIN A LOCAL OIL AND HAZARDOUS SUBSTANCES

RESPONSE PLAN FOR HIS ZONE. THIS PLAN ADDRESSES FEDERAL RESPONSE TO ALL SPILLS IN THE NAVIGABLE WATERS OF THE UNITED STATES. THERE IS NO FEDERAL REQUIREMENT FOR CONTINGENCY PLANS BY INDUSTRY, LOCAL OR STATE GOVERNMENTS. IN THE CASE OF VALDEZ, A UNIQUE SITUATION EXISTS. THE STATE OF ALASKA REQUIRED A CONTINGENCY PLAN BE WRITTEN BY ALYESKA AND APPROVED BY THE STATE. THE COAST GUARD DOES NOT HAVE THE AUTHORITY TO APPROVE THE PLAN.

IT IS TOO EARLY IN OUR REVIEW PROCESS TO DETERMINE THE EXTENT OF THE PROBLEM OF INADEQUATE CONTINGENCY PLANS AND WHAT STEPS WILL BE NECESSARY TO INSURE THAT ALL PLANS ARE ADEQUATE. HOWEVER, WE MUST BE ASSURED THAT WHENEVER THERE IS THE POTENTIAL FOR AN OIL SPILL, THERE WILL BE A PLAN IN PLACE WITH AN ADEQUATE CAPACITY FOR A TIMELY RESPONSE.

I BELIEVE THAT THE DECISION NOT TO FEDERALIZE THE REMOVAL ACTION IN PRINCE WILLIAM SOUND WAS THE CORRECT ACTION. FURTHERMORE, I BELIEVE IT WOULD BE A GRAVE MISTAKE TO SHIFT PRIMARY RESPONSIBILITY FROM THE POTENTIAL POLLUTER TO THE FEDERAL GOVERNMENT IN ALL OIL SPILL REMOVAL ACTIONS. THE GREATEST INCENTIVE TO THE POTENTIAL POLLUTERS TO MAKE SURE AN ACCIDENT NEVER OCCURS AND TO TAKE IMMEDIATE ACTION AFTER A SPILL IS TO HOLD THEM PRIMARILY RESPONSIBLE, NOT ONLY FOR PAYING TO CLEAN UP THE DAMAGE THAT THEY CAUSE, BUT ACTUALLY TO BE RESPONSIBLE FOR THE CLEANUP OPERATION. ONLY AFTER THE FEDERAL GOVERNMENT DETERMINES

THAT THEIR ACTIONS ARE INADEQUATE SHOULD THE REMOVAL ACTION BE FEDERALIZED WITH ASSESSMENTS OF APPROPRIATE PENALTIES TO BE BORNE BY THE POLLUTER.

I WILL ALSO BE LOOKING AT UPGRADING THE VESSEL TRAFFIC SEPARATION SYSTEM (VTS) TO ADD COVERAGE AND PLACE ALL TANKERS OPERATING BETWEEN VALDEZ AND THE HINCHINBROOK ISLAND UNDER THE POSITIVE CONTROL OF THE VTS.

FINALLY, I SHORTLY WILL BE SUBMITTING TO CONGRESS COMPREHENSIVE OIL SPILL LIABILITY AND COMPENSATION LEGISLATION AND URGE THE CONGRESS TO CONSIDER AND ACT UPON LEGISLATION PROMPTLY. IN ADDITION, THE PRESIDENT BELIEVES RATIFICATION OF PENDING INTERNATIONAL OIL POLLUTION LIABILITY AND COMPENSATION CONVENTIONS SHOULD RECEIVE PRIORITY ATTENTION BY THE SENATE. THE UNITED STATES WAS A LEADER IN THE DEVELOPMENT OF THOSE AGREEMENTS, WHICH WOULD PROVIDE UP TO $260 MILLION FOR A SPILL SUCH AS THE EXXON VALDEZ AND IT IS TIME TO RATIFY THEM. THIS IS THE THIRD STEP OF OUR RESPONSE TO WHAT I BELIEVE IS ONE OF THE GREATEST ENVIRONMENTAL TRAGEDIES IN AMERICAN HISTORY.

ENACTMENT OF COMPREHENSIVE OIL SPILL LIABILITY AND COMPENSATION LEGISLATION IS LONG OVERDUE. NOW IS THE TIME TO WORK OUT OUR DIFFERENCES ON THIS EXTREMELY VITAL LEGISLATION AND PRODUCE A BIPARTISAN PACKAGE WHICH WOULD EFFECTIVELY CLOSE THE HOLES IN THE CURRENT LAWS.

THE REAGAN ADMINISTRATION TESTIFIED IN SUPPORT OF COMPREHENSIVE OIL SPILL LEGISLATION ON SEVERAL OCCASIONS, AND WE AGAIN URGE THE SENATE TO ACT ON A BILL. I REALIZE THAT THE ISSUE OF THE LIMITED PREEMPTION OF STATE LAW REQUIRED TO IMPLEMENT THE CONVENTIONS PREVENTED PASSAGE OF COMPREHENSIVE OIL SPILL LEGISLATION IN THE PAST. WE CAN NO LONGER ALLOW THIS ISSUE TO DIVIDE US.

ADDRESSING THE IMMEDIATE DEFICIENCIES THAT RESULTED IN THE PROBLEM AND STRENGTHENING AND TIGHTENING FEDERAL REGULATION AND OVERSIGHT IN THE AREA IS NOT ENOUGH. WE CANNOT ALLOW THE RESTORATION OF OUR MARINE ENVIRONMENT AND THE COMPENSATION OF OUR CITIZENS TO DEPEND UPON LUCK.

IT DOESN'T TAKE MUCH IMAGINATION TO ENVISION A CATASTROPHIC SPILL, PERHAPS OFF THE FLORIDA KEYS, WHERE THE TANKER IS FOREIGN -FLAGGED AND UNREACHABLE IN UNITED STATES COURTS, OR THE OWNER HAS NO ASSETS, THE CLEANUP AND DAMAGES COSTS WOULD BE UNCOMPENSATED OR FALL TO THE U.S TAXPAYERS. WE NEED TO BE A PARTY TO AN EFFECTIVE INTERNATIONAL SYSTEM TO PROTECT AGAINST THIS SCENARIO.

WE MUST PLACE RATIFICATION OF THE 1984 PROTOCOLS TO THE 1969 CIVIL LIABILITY CONVENTION AND THE 1971 FUND CONVENTION AND ENACTMENT OF COMPREHENSIVE OIL SPILL LIABILITY AND COMPENSATION LEGISLATION ONE OF OUR TOP PRIORITIES.

THANK YOU FOR THE OPPORTUNITY TO APPEAR BEFORE THIS COMMITTEE. I WOULD BE HAPPY TO ANSWER ANY QUESTIONS THAT YOU MIGHT HAVE.

STATEMENT OF WILLIAM K. REILLY, ADMINISTRATOR
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE SENATE ENVIRONMENT AND PUBLIC WORKS
SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION

APRIL 19, 1989

Mr. Chairman and members of the Subcommittee, I am William K. Reilly, Administrator of the U.S. Environmental Protection Agency (EPA).

When I travelled to Alaska, I witnessed first hand the devastation that area is experiencing. The spill of over 10 million gallons of oil in one of the country's most pristine environments is the worst in U.S. history. It has spread over more than 3,000 sq. miles of water and has contaminated more than 1,300 miles of shoreline. It is affecting land and marine wildlife and birds, as well as the livelihood of thousands of Alaskan citizens and the quality of the environment in Prince William Sound. It is not certain how long it will take to recover from this devastating spill.

Given the serious implications of this incident for the environment, I appreciate the opportunity to discuss EPA's activities and concerns, along with the adequacy of oil spill contingency plans, Federal regulation and oversight, and current measures to protect air and water quality in the operation of the oil storage facility at the Port of Valdez. I have been directed to coordinate the long-range planning to restore the environment

of Prince William Sound. You can be assured that EPA supports all cleanup activities and will continue to provide any assistance necessary to mitigate adverse effects and to help prevent such accidents from occurring again.

REPORT TO THE PRESIDENT

Since the Exxon Valdez incident on Friday, March 24, 1989, the National Response Team (NRT) has convened regularly to coordinate Federal response activities. In addition to the response itself, much attention has been focused on the President's charge to the NRT to prepare a report on the preparedness for, response to, and lessons learned from this incident (attached is the letter charging the NRT with this task). The report is to be submitted to the President in early May.

The NRT's Report will:

-- provide a full description of the incident,
-- address the status of preparedness for the incident,
-- assess the response actions taken,
-- provide a preliminary description of effects,
-- identify follow-up actions needed (including supplemental reports), and
-- discuss lessons learned.

Both near and long term implications of this oil spill will be addressed. A major focus will be on how we can improve preparedness and response for such incidents, including the state of the art and availability of technology and equipment for responding to oil spills. Economic and energy impacts will also be addressed as appropriate. Unfortunately, there has not been much improvement in oil cleanup technology during the last decade, either in the public or the private sectors.

CONTINGENCY PLANS AND IMPLEMENTATION

For the purposes of clarification, there are several types of contingency plans that have an impact on this spill: the Federal National Oil and Hazardous Substances Pollution Contingency Plan, Regional, State and local government plans, and industry contingency plans. The plan with perhaps the greatest direct significance to this incident is the Oil Spill Contingency Plan for the Valdez Terminal developed by the Alyeska Pipeline Service Company. The most recent version of this plan, which was approved by the State of Alaska in 1987 under Title 18 of the Alaska State regulations, assigns Alyeska responsibility for directing cleanup of spills resulting from operation of tankers in Prince William Sound.

The National Contingency Plan, or NCP, was mandated after the Torrey Canyon ran aground in March, 1967 spilling close to 30

million gallons of oil that eventually washed ashore on English and French beaches and causing massive environmental and economic damage. President Johnson directed the Department of the Interior to take lead responsibility in completing a multi-agency contingency plan for responding to such emergencies. From that effort, the first NCP was developed in 1968, and it established the Federal structure and responsibility for responding to oil spills and releases of hazardous substances. It also created the first National Response Team, which I will describe in greater detail later. In 1970, the National Contingency Plan was revised to designate EPA as the Chair of the NRT with Coast Guard as Vice-Chair. I am supplying, for the record, the current NCP (40 CFR Part 300). This intergovernmental plan has been a statutory requirement since 1970 and has served well in providing a coordinated Federal response to spills in the nation's waterways for nearly 20 years. In the current spill, the U.S. Coast Guard has the lead in furnishing the on-scene coordinator (OSC) and is being well supported by members of the Regional Response Team (RRT), which include the State of Alaska.

Second, there are the industry contingency plans which were required by the State of Alaska in connection with the permitting of the Alaska pipeline from Prudhoe Bay to Valdez. These plans are designed, funded, equipped, and implemented by industry. Much criticism has been voiced about the adequacy of these plans since the spill occurred. One may generally conclude that these plans

were inadequate to control a spill of the magnitude of almost 11 million gallons of oil in Prince William Sound.

As you may already know, the NRT's 30-day Report to the President will address the overall adequacy of oil spill contingency plans. It is too soon to make any specific comments regarding the adequacy of the industry, State or Federal contingency plans implemented at the time of the incident in Alaska. Obviously, there are deficiencies and weaknesses, as evidenced by the tremendous amount of damage to the environment and wildlife of Prince William Sound. A team of NRT representatives (EPA, Coast Guard, and the Departments of the Interior and Energy) returned a few days ago from Alaska after reviewing industry and government (i.e. National, Regional, OSC, State and local) oil spill contingency plans. The team will complete a preliminary analysis of the Alaskan Regional Response Team efforts and determine the adequacy of resources in place, review the coordination, monitoring and exercising of State and local plans, examine prevention aspects, and finally, outline lessons learned and recommendations. Until that team has an opportunity to report on what they have learned, it is premature to make specific pronouncements on what was wrong with the plans or how they should be changed. The 30-day report will provide a framework for the more detailed and analytical report on port readiness, ordered by the President and to be completed in six months.

The NRT report will further address the implementation of planning and its effect on preventing environmental damage from the oil spill in the Sound. It will describe the response actions taken, identify events that created delays, assess effectiveness of cleanup operations, identify research needs, and outline lessons learned and recommendations.

It must be emphasized that the contingency planning process for ports and harbors must be driven at the State and local levels. Because of State and local entities' detailed knowledge of the area and the situation, they are in the best position to identify hazards and plan for responses to those hazards. The Federal government has the responsibility for developing guidance and providing technical assistance to States and local communities in their planning efforts. The Federal government, however, should not and cannot develop, revise, review and exercise all of these plans alone. Government at all levels and industry must work together to ensure that contingency plans are effective and useful.

NATIONAL RESPONSE TEAM

As stated earlier, the NRT was established in 1968 and has been actively addressing its responsibilities ever since. The NRT has met to consider numerous major oil and hazardous materials spills and has provided recommendations for improvements in Federal preparedness and response capabilities. For example, the NRT

actively assisted in the St. Lawrence River Spill, the Campeche (IXTOC) Incident and the Schuylkill River Spill. It meets monthly to coordinate Federal preparedness and response policies and programs to ensure an adequate Federal capability to address such incidents as the Alaskan oil spill.

FEDERAL REGULATION AND OVERSIGHT

EPA has no regulatory authority to prevent releases associated with oil transport iteself. The U.S. Coast Guard has authority over the Port of Valdez and over shipping into and from the Port. The Department of Transportation and the State of Alaska have the primary authority over the pipeline into Valdez. Because of this and the fact that the National Transportation Safety Board and the Coast Guard Marine Safety Office are investigating the incident, it would be inappropriate for me to comment at this time on actions pursuant to those regulations and attendant oversight.

ON-SCENE COORDINATOR AND RESPONSIBILITIES

Either an EPA or Coast Guard employee assumes the role of on-scene coordinator (OSC), depending on the location of an oil spill. EPA's jurisdiction generally is over inland navigable waters above the tidal zone. The Coast Guard generally has jurisdiction for the coastal zone and tidal waters, the Great Lakes and specified ports and harbors of inland rivers such as the Port of St. Louis. The OSC is responsible for monitoring the cleanup (as in the case of

the Exxon Valdez incident) or actually conducting the response action when the responsible party is not capable of responding or is not performing the response adequately, or when the incident is beyond the capability of State or local resources. The OSC has complete Federal responsibility for on-scene actions to assess prevent, contain, assure cleanup of, or otherwise mitigate spills of oil or hazardous substances. An OSC's authority in oil spills includes the ability to access the 311(k) Fund and to make any or all decisions necessary to protect public health and welfare, and the environment.

The National Contingency Plan establishes two main support mechanisms for the OSC. First, the Regional Response Team, which consists of Federal and State agencies which are immediately involved in or affected by the spill, provides advice and assistance on cleanup operations. Among other things, this may include coordinating with State and local agencies, assisting in establishing response priorities, providing scientific and technical expertise and equipment, and giving advice on how and when to use dispersants. Secondly, the National Response Team, with interests and expertise in various aspects of emergency response to pollution incidents, can help to coordinate the overall supply of equipment, personnel and other national level support which may be needed for a response. There are several special teams available to assist the OSC in responding to an incident, such as the Coast Guard's National Strike Force and Public

Information Assist Team, EPA's Environmental Response Team (ERT), and the National Oceanic and Atmospheric Administration's Scientific Support Coordinators. As a result of strong coordination in the field and full cooperation of all appropriate departments and agencies, the NRT has not been required to provide direct assistance in this particular incident. It has, however, dealt with coordination of Federal agency actions at the national level and the public information processes.

EPA'S ROLE

Because the Exxon Valdez incident occurred in coastal waters, the Coast Guard has the Federal lead on response oversight and is the on-scene coordinator (OSC). EPA is in a supporting role to the Coast Guard OSC, by providing literally hundreds of support personnel in various aspects of the overall effort on site, at Headquarters, and in our laboratories and Regional Offices. EPA Region X, through the Regional Response Team, is providing direct logistical and technical support to the OSC. There are several Region X technical personnel from various media offices on-scene. They are involved in response oversight, environmental impacts assistance, and shoreline protection and cleanup priorities. Emergency Response Team staff are on the scene providing support to the OSC and the Alaska State Department of Conservation. Their capabilities include multi-media sampling and analysis, hazard evaluation, environmental assessment and cleanup techniques; and

ERT personnel will be performing these functions as needed. Thus far, they have conducted overflights of the area to assess the situation visually and have made site visits to areas impacted by the spill to provide assistance to the agencies involved in studying environmental impacts. They are also providing advice regarding priorities for shoreline cleanup and methodologies plus fate and transport of the oil in the marine environment. Future activities for EPA personnel on-scene will include addressing the disposal of oily wastes and debris and determination of "How clean is clean?" towards the end of the cleanup process.

Within the EPA, we have activated the National Incident Coordination Team (NICT), which serves as a focal point for overall internal Agency coordination efforts during emergency events that have national or international implications. It brings together a multi-program team to deal with broad issues during extraordinary emergency situations. The NICT was formed in response to events such as the release of methyl isocyanate in Bhopal, India and the radiation release at Chernobyl. The Chair of the NICT is Jim Makris, Director of the Chemical Emergency Preparedness and Prevention Office in the Office of Solid Waste and Emergency Response, and the Incident Alternate Chair for this event is Tudor Davies, Director of the Office of Marine and Estuarine Protection in the Office of Water. The NICT is helping to organize EPA's contribution to the response and will continue to coordinate EPA's activities throughout this response.

For the future, as I have previously stated, the President has asked me to coordinate the long range planning to restore the environment of Prince William Sound. We have started a number of activities that will draw on the Nation's leading scientists and oil spill experts as well as the other Federal agencies that are assessing the effects of the spill on the natural resources and wildlife of the Sound and the Gulf of Alaska.

I am establishing a Scientific Advisory Panel that will provide a continuing source of scientific advice on the technical issues related to restoration of the Sound. This group of expert scientists from universities, government agencies and the private sector will convene next month to review restoration activities already underway and to consider additional activities. The group will report directly to me and will meet as necessary over the next few years to ensure that all relevant ideas are evaluated and considered as part of the cleanup of the spill.

One of the immediate actions already begun is evaluation of some innovative cleanup techniques that may be able to speed recovery of the Sound. This week, the EPA research office convened a scientific workshop to investigate the feasibility of applying bioremediation techniques to clean up the oil. Bioremediation, or biological degradation, involves the use of microorganisms to break down the oil -- in this case the question is whether the naturally

occurring organisms can be stimulated to speed up the process that occurs in nature. This group of technical experts will evaluate the existing techniques and assess their applicability to the conditions in Prince William Sound. Although this is a relatively new technology and we must be cautious about our expectations, this group may recommend proceeding with some tests or demonstration projects. EPA with other Federal agencies is preparing a long-term research plan which will be directed at studies on how to promote recovery of the productivity of the marine ecosystem. The Scientific Advisory Panel will have an active role in our research planning.

The preparation of a long-term research plan by EPA will augment the damage assessment program being conducted by the Natural Resources Trustees - Department of the Interior, Department of Commerce (NOAA), Department of Agriculture and the State of Alaska. The Trustees are recognized under the Federal Water Pollution Control Act as implemented by the NCP and Executive Order 12580. The Trustees are responsible for assessment of damages for injuries sustained by natural resources and ensuring compensation for environmental harm. The Trustees reached a financial agreement with Exxon last week to fund the damage assessment. By agreement with the Trustees, EPA will be an integral part of the process in order to insure that the Trustees' efforts provide the proper input to the subsequent efforts. In addition, EPA will provide technical support and assistance to the Trustees in such areas as monitoring,

testing, sampling and technology. The thrust is to be certain that overlaps, redundancy and duplication are minimized or eliminated, and that all agencies with responsibilities are working together. The Trustee agreement goes a long way toward assuring that.

MEASURES TO PROTECT AIR AND WATER QUALITY

AIR ISSUES:

There is one issue regarding the implementation of the Clean Air Act and Alyeska. Questions have been raised by the State of Alaska and EPA Region X concerning the adequacy of the Alyeska Pipeline Service Company's air pollution controls on the Trans Alaska Pipeline System (TAPS). The two agencies have been investigating air quality of the Alyeska operation due to the introduction of increased amounts of natural gas liquids (NGLs) into the pipeline. In late 1986, the pipeline oil producers constructed a natural gas conditioning plant, resulting in a greater amount of NGLs entering the pipeline and ultimately arriving at the Valdez terminal. These added NGLs increase the volatile organic compounds (VOC) emitted, raising the issue of whether air quality violations have occurred. The increase in VOCs and other changes to terminal facilities have led the State and EPA to conclude that these may be major modifications and therefore, Alyeska may need to apply for appropriate air quality permits. The dispute concerns the operational and physical changes affecting

control equipment along the TAPS and at the Valdez terminal. One possible outcome of the dispute would require Alyeska to file for new air containment discharge permits.

WATER ISSUES:

There are two major Clean Water Act (CWA) issues that relate to water quality concerns arising from the operation of the facility at the Port of Valdez. First of all, the Oil Pollution Prevention regulation (40 CFR Part 112) requires that owners and operators of non-transportation related facilities (the Valdez oil storage and loading terminal would be considered non-transportation related) prepare and implement a spill prevention, control and countermeasures (SPCC) plan. SPCC plans should analyze the potential sources of accidental spills of oil (e.g. failure of oil storage tanks, potential breaks in transfer lines used to load tankers, etc.) and identify prevention measures consistent with good engineering practice following the (non-prescriptive guidelines of the regulation. After the Ashland oil spill on January 2, 1988, in Floriffe, Pennsylvania, in which approximately one million gallons of oil were spilled into the Monongahela River, an interagency task force issued recommendations concerning the regulations that included, among other things' a recommendation that they be modified to make most current guidelines required practices. It also recommended that the regulation include more specific contingency planning requirements (that is actions taken

to respond to a spill after it occurs rather than practices to prevent oil from being released) than are currently contained in the regulation. EPA is now taking action to implement these recommendations through amendments to the SPCC regulations.

Secondly, there are National Pollutant Discharge Elimination System (NPDES) permitting requirements established pursuant to the Clean Water Act. Facilities that discharge wastewater from a point source must have an NPDES permit. One of the major requirements placed in such a permit is limitations on the amount of pollutants that may be discharged with the wastewater. Limitations may be based on an analysis of the receiving water quality requirements or the available treatment technology, whichever is more stringent. A major source of wastewater at the Valdez terminal is ballast water unloaded from tankers taking on oil at the terminal. Since the ballast usually goes in the same tanks as the oil, it will be contaminated with oil from the previous load. Approximately 2.2 million barrels of oil per day is the oil transfer rate through the terminal. While ballast is not loaded on a one for one basis with oil, ballast water discharges from the Valdez terminal would be on the order of 2.5 million gallons per day. This water then undergoes treatment before it is returned to the Sound.

In addition, section 311 of the Clean Water Act is the primary Federal funding authority for dealing with oil spills into water. It provides for:

-- Federal authority for response to oil spills into or within the territorial seas, the coastal zone, and inland navigable waters, including adjoining shorelines;
-- a notification mechanism for spills through the National Response Center (funded by DOT and EPA and operated by the Coast Guard);
-- liability of the responsible party for the cleanup or the Federal costs of removal and damage to natural resources;
-- establishment of a revolving fund (311(k) Fund) financed mostly through Federal appropriations from the General Treasury or responsible parties reimbursing the costs of Federal cleanup actions; and
-- seeking injunctive relief in court.

CONCLUSION

In recognition of the enormity of the required effort, the President escalated the response, bringing in Secretary of Transportation Skinner and Admiral Yost, supported by the efforts of the Department of Defense to ensure that everything the Federal government can do is being done. Also, Exxon has provided $15 million to a trust fund to begin the efforts to return the

environment of Prince William Sound to its previous state. EPA is supporting these efforts with personnel, equipment and technical assistance. In addition to these efforts, the people of Alaska and throughout the United States are calling to volunteer their time and efforts to assist in the response and cleanup. Exxon and involved Federal agencies are coordinating the hiring and deployment of these committed workers to ensure their effective use.

A massive oil spill has taken place, causing significant adverse environmental and economic impacts to the citizens of Alaska and to the natural resources of the United States. The responsible party, Exxon, has assumed the lead for cleaning up the spill and dealing with the environmental and economic damage. The Coast Guard is responsible for ensuring that the cleanup activities are adequate. Many agencies of the Federal government, including EPA, are supporting the Coast Guard effort. EPA has marshalled its various resources to help minimize, to the best of its ability, the repercussions for the environment. This task will not be quickly accomplished, but EPA is committed to continuing its efforts until the job is done. Finally, EPA will fully participate in the report to the President on how the preparedness for and response to these incidents might be improved in the future.

That completes my prepared statement, Mr. Chairman. I would be pleased to answer any questions the Subcommittee may have.

TESTIMONY OF GOVERNOR STEVE COWPER
BEFORE THE SENATE SUBCOMMITTEE ON
ENVIRONMENTAL PROTECTION
APRIL 19, 1989,

Mr. Chairman and Members of the Subcommittee:

I appreciate the opportunity to appear before this Subcommittee. In the weeks since the Exxon Valdez spilled a massive amount of oil in Alaska's Prince William Sound, Alaskans and much of the nation have experienced the anguish and anger that results from such a tragedy. It's been a painful learning experience. I'd like to share with this Subcommittee some of what we have learned, what we can do to prevent these incidents and how we should deal with them.

The key to protecting ourselves from future oil spills is preventing them. Once the oil is on the beaches, we're already behind and the damage is done. I believe the Exxon Valdez spill could have been prevented and that through reasonable legislation we can prevent others in the future. I recommend that the federal government take immediate concrete steps to minimize the chances of another massive spill. Specifically,

* the Coast Guard should make a thorough review of tanker design, construction, and operations so that human errors will not result in loss of a tanker or its cargo;

* Coast Guard licensing requirements should be revised so that licenses are reexamined more frequently and information on drug and alcohol violations is available to prevent giving command of a supertanker to a person who could be incapacitated;

* at the same time we should conduct a thorough review of the use of drugs and alcohol in the maritime industry and look for new measures to prevent their contributing to another tragedy; and

* a thorough review should be made of Coast Guard radar and navigational systems throughout the nation, so that shore-based radar is always available when a tanker is maneuvering in dangerous or sensitive waters.

We must also reexamine the system for responding to oil spills. We have seen confusion, lack of coordination, and unforgivable delays in responding to the spill in Prince William Sound. This should never be the case again. The federal and state governments and the industry must prepare -- in advance -- for the next large spill. I recommend:

* that Congress require all tankers to have equipment and trained personnel on board to deal with large spills the moment they happen;

* that the National Oil Spill Contingency Plan be changed so that:

    * the Coast Guard automatically is put in charge of large spills, without waiting to see if the responsible party -- who will ultimately pay the bill -- does an adequate job;

    * a world-wide computer inventory of spill equipment and experts is maintained, so that whatever is needed can be put on site without delay;

    * computerized data on geographical, meteorological and oceanographical characteristics of coastal areas is maintained, so equipment and personnel can quickly be sent to wherever they will do the most good.

I also recommend that we reexamine the entire structure of contingency planning, to make sure that the right equipment and personnel are always available at strategic locations throughout the country, always fully trained, and always ready to respond at a moment's notice.

We have also learned the importance of having emergency funding available at all times. I mean funding for both immediate containment and cleanup work, which is enormously expensive, and for giving emergency relief to people whose property and livelihoods are damaged by a spill. We cannot depend on the oil industry to fill these needs. I recommend:

* a comprehensive look at existing federal funds available for containment and cleanup, so that they are funded at the level needed for a major catastrophe, and so that access is quick and efficient;

* the same sort of comprehensive look at the federal programs available for emergency aid to individuals; and

* a comprehensive look at ways to insure that all claims for damages caused by an oil spill will be paid by the responsible parties.

We realize that we need to reexamine whether existing civil and criminal penalties in federal law are adequate for major oil spills. Existing penalties are not designed for large spills and contain unrealistically low

limits. We need to have tough laws that give a real incentive to industry to avoid spills and clean them up, and which are not merely another cost of doing business.

Finally, I urge Congress to set up a new program of intensive research into oil spills: how to prevent them and how to deal with them once they happen. We should not have to use a spill like that in Prince William Sound as an experimental laboratory to find out the best way to contain and clean up oil; we should know how in advance.

The State of Alaska is not, however, waiting around for the federal government to fix everything for us. We already have begun many of these tasks ourselves. Terminal and tanker activities in Valdez are operating under stringent conditions set out in an emergency order. We have requested, and the Legislature has approved a $20 million appropriation for clean-up. Every division of state government has been involved in addressing social, fiscal, and resource impacts in the affected communities of Prince William Sound. Already, we have identified in state government the computer capability to compile on one database all the information needed to respond to a spill. Finally, in looking to the future, we have begun identifying areas of needed change in state law.

But we cannot do it alone. What we are looking for now is cooperation in resolving those issues that go beyond the state level, that have the potential to assist coastal states throughout the nation. We look forward to working with you to identify ways of doing that.

I thank the Subcommittee for the opportunity to make these remarks. It is my hope that this spill -- as tragic as it is -- will result in constructive measures to insure that it never happens again.

STEVE COWPER
GOVERNOR

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

RESPONSES TO QUESTIONS BY SENATOR HARRY REID

1. What is happening to those citizens with payments to make on homes, fishing boats and fishing licenses?

Exxon has paid some claims related to direct fishing losses. This has helped some people with loss of income from the cancelled herring fishery. Most boat payments are due at the end of the fishing season, so the impact of the spill on boat payments has not yet been determined. The impact on people's ability to pay their mortgages depends on individual circumstances. Those who are employed on the clean up are likely not having significant financial problems. Those whose livelihood has been disrupted by the spill may be having more significant problems. Impacts on fishing-related or fishing-dependent industries (local restaurants, day care centers, etc.) are of particular concern since most emphasis to date has been on the fishing industry.

2. What will you seek from Exxon/Alyeska for compensation and mitigation?

The State will seek recovery of all costs and damages from Exxon.

3. What is the best thing the Federal Government can do to help those families and communities now?

The best thing the federal government can do is to closely monitor Exxon's performance in fulfilling its promise to make the people of the State of Alaska whole again. There is great concern that once public attention is removed from the spill, concern over the needs of individuals will not be adequate. It is very important that Congress play an oversight role in the overall recovery. It is also extremely crucial that Congress fully analyze the adequacy of federal laws to address spill events. The ability of states to protect their own interests must be maintained, even as the federal laws need to be streamlined and strengthened. Congress might also consider a hard look at means to prevent spills in the future.

4. Has Exxon's performance to date met the needs of Alaska and what you expected from them in the case of an oil spill of this size?

No. The clean up effort, both on the water and now on the beaches, has not been adequate. It has taken a tremendous amount of energy and oversight from the State and local communities to direct Exxon's attention to all the affected areas, including the extensive areas outside Prince William Sound that have been affected. Response to claims and concerns has occurred to some degree, but the process has been difficult.

QUESTIONS FOR GOVERNOR COWPER FROM SENATOR BAUCUS

There are allegations of poor compliance with environmental safeguards at the Valdez terminal. The GAO has investigated discharges of ballast water, and there have been charges that incinerators for toxic air discharges are not operating and that the facility has not been upgraded as planned.

1. Is it your view that the spill was an isolated incident or symptomatic of a broader pattern of environmental noncompliance?

The response to the spill indicates a low level of true preparedness on the part of Alyeska. The degree of attention to environmental concerns at Alyeska has certainly eroded over the years. The elimination of the response team at Valdez is a key example. The State has grave concerns with other aspects of the operation at the ballast water treatment plant in Valdez. In particular, the State believes that the level of toxic hydrocarbons in the waste water discharge from the ballast water treatment plant must be reduced and has certified a federal waste water permit with reduced emission levels. The State also believes that the Alyeska facility should undergo a review of air emissions and impacts pursuant to the Prevention of Significant Deterioration program, delegated to the State of Alaska under the Clear Air Act.

2. Do you see a need to improve the total picture of operations at the Valdez terminal?

Yes. Alyeska needs to increase its concern and awareness of environmental issues and concerns, and stop cutting corners.

3. Several groups in the Valdez area have suggested development of an overall audit of the terminal to assure the best possible environmental program. What is your view of this suggestion?

An independent environmental audit could be beneficial.

Statement of W. D. Stevens
President, Exxon Company, U.S.A.
before the
Subcommittee on Environmental Protection
of the Senate Committee on Environment and Public Works
of the
United States Senate
April 19, 1989

I am Bill Stevens, President of Exxon Company, U.S.A. I am here today to respond to your questions regarding the Exxon Valdez oil spill and describe our efforts to deal with its consequences.

The Accident

I will begin by noting that we do not know what caused the accident. We do have certain facts: the accident occurred early on Friday morning, March 24; the weather was clear; the ship had no known mechanical problems; a course change was requested and authorized; the captain subsequently left the bridge; and tests made some time after the grounding showed the captain's alcohol level was above limits established by the Coast Guard. Obviously, there are many unanswered questions. The National Transportation Safety Board hearing on May 16 will provide more information on the cause of the accident and we look forward to having the results of its detailed investigation.

Exxon's Response

Exxon's response was prompt and consistent with the previously approved Contingency Plan.

Within three hours of the spill, Exxon Shipping Company set up a Casualty Response Center in Houston. In the first few hours, arrangements were made for the first five of over eighty flights needed to airlift more than 2,000 tons of equipment to Alaska. Exxon's key response team managers were in the air the morning the spill occurred and were on site 18 hours after the vessel grounding. Dozens more trained people and tons of supplies began arriving that afternoon and have continued arriving daily. Steps to charter aircraft, hire consultants, and purchase supplies were initially expedited from Houston and, later, in Valdez.

On arrival, one of the response team's immediate priorities was to prevent the one million barrels of crude oil remaining on the Exxon Valdez from leaking into Prince William Sound. On Saturday, March 25, the first day after the spill, Exxon began the difficult and risky process of transferring oil into the first of three Exxon tankers. The transfers were successfully completed on April 4. Salvage operations began immediately with the refloating of the vessel on April 5.

From the outset, the Exxon team moved rapidly to assemble materials and personnel to recover the spilled oil on the water and to protect the most sensitive threatened areas of Prince William Sound. That effort quickly grew, and constitutes what is probably the largest buildup of equipment and personnel ever assembled to combat an oil spill.

Early booming and skimming operations were conducted to protect five key fish hatcheries. On April 2 a shoreline cleanup priority committee was formed and on April 8 preliminary approval was obtained from the Coast Guard and eight other agencies for a shoreline cleanup strategy.

Exxon's Response vs. Contingency Plan

Our response was consistent with the actions envisioned in the Oil Spill Contingency Plan developed by Alyeska and reviewed and approved by federal and state authorities. While it was thought to be unlikely, the approved Contingency Plan did consider the possibility of a 200,000 barrel spill in Prince William Sound--about the same size and in the same vicinity as the Exxon Valdez oil spill. The approved Plan recognized that a spill of that magnitude could not be fully contained, large volumes of oil would reach the shore and a significant cleanup effort would be required.

The approved Contingency Plan emphasized the importance of the early use of dispersants and open burning. In the words of the Plan:

> "In reviewing the aspects of this size spill it becomes very apparent how important it is to have dispersants approved so that they can be used very effectively to prevent the continuing input of oil into the small bays and shorelines in Prince William Sound. Burning also has to be looked at as a very good alternative to the cleanup in Prince William Sound on the various inlets and bays in which oil may accumulate."

We are confident that had we obtained prompt permission to use dispersants and open burning the environmental damage from the spill would have been significantly mitigated.

Economic Impact

In addition to our efforts to contain and clean up the spill, we have mobilized to mitigate the economic impact on the communities of Prince William Sound. We currently have 30 claims agents on the scene and we have opened claims offices in Valdez, Cordova and Homer. Funds have been placed in local banks to provide immediate advance payments to those requiring monetary support while claims are being processed.

Many local fishermen and others have been employed in our containment and cleanup efforts in Price William Sound. Over 1700 people are currently involved and more will be hired when they can be effectively used.

Environmental Effects

While we have been tackling the tasks of removing oil from the Exxon Valdez and from the water, we have also been moving to assess and deal with the environmental effects of this spill. As part of the initial response, Exxon assembled a group of environmental experts to provide advice to our response team on the best ways to go about cleanup to mitigate damage to the environment. This team, working with federal and state personnel, moved quickly to identify sensitive areas for protection and assess biological and ecological impacts of the spill on water quality, sediment and marine life. Samples were being taken even before the oil began to spread from the original spill site.

Exxon has also agreed to provide $15 million for a study to evaluate the impacts of the Exxon Valdez spill on the natural resources of Prince William Sound. Participating in this study will be NOAA, the Department of the Interior, the Department of Agriculture and the State of Alaska. The early data gathered by the Exxon team will be made available for the study.

Conclusion

It is less than a month since the accident and we are in the midst of an extensive oil recovery and cleanup operation. It will take time to render a considered judgment about the improvements that may be needed in light of what we will learn about the accident and the response to the oil spill by all those involved.

I believe that by our actions, we in Exxon have shown our intention to deal responsibly with the spill and its effects. We cannot undo what happened; however, we can and are taking every reasonable action to limit the damage, clean up and otherwise mitigate the impact.

Before taking your questions, I would like to introduce Frank Iarossi, who is the President of Exxon Shipping Company. Frank received the call about the grounding of the Exxon Valdez early Friday morning in Houston. He is the person who put our response plan into action and led our team in Valdez for the first critical 14 days. He and his people did an outstanding job under very trying circumstances. I am pleased to have Frank with me this morning to help answer your questions.

2073F

DONALD E. SMILEY
Vice-President
Washington Office

May 31, 1989

The Honorable Max Baucus
United States Senate
706 Senate Hart Office Building
Washington, D.C. 20510

Dear Senator Baucus:

In your April 26 letter to Exxon Company, U.S.A. President William D. Stevens, you requested responses to some questions relating to his testimony on the EXXON VALDEZ accident before the Subcommittee on Environmental Protection on April 19, 1989. The answers to these questions are contained in the attachment. We have also attached an answer to a question asked by Senator Chafee during the hearing which Exxon Shipping Company President Frank Iarossi offered to respond to in writing.

We understand these responses will be included in the permanent record of this hearing.

Sincerely,

DES:dm
Attachments

cc: The Honorable John H. Chafee
Mr. William D. Stevens

99-592 - 89 - 5

SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
ENVIRONMENTAL PROTECTION SUBCOMMITTEE

Follow-Up Questions for Oil Spill Hearing Record (4/19/89)
From Senator Reid

Q. How would you characterize your response to the spill to date? adequate? the response you wanted?

Broadly speaking, Exxon's response has from the first been consistent with the obligations which come from the acceptance of responsibility for the spill. We have and are taking every reasonable action to limit the damage, clean up the spill, and mitigate its effects.

Exxon responded quickly and forcefully from the outset. Within the first 24 hours after the spill, a team of experts and equipment marshalled from around the world began arriving on the scene. Our initial response was consistent with the actions envisioned in the Oil Spill Contingency Plan developed by Alyeska and reviewed and approved by state and federal authorities.

With respect to the present clean-up efforts, Exxon's plan to clean up all affected shoreline was approved by the Coast Guard on April 17, and an updated plan was submitted to the Coast Guard on May 1 which establishes specific milestones for shoreline cleanup in Prince William Sound and the Gulf of Alaska. Since that time Exxon has announced that it will use additional personnel and equipment in the cleanup effort. These additional resources will provide greater assurance that the cleanup effort will be completed on schedule. Shoreline cleanup has commenced and is expected to be completed by mid-September.

Given the approved contingency plan in place, the size of the spill and its logistically remote location, it is difficult to envision other actions which we could have taken that would have altered the course of events. However, we remain convinced that had prompt permission been given to us to use dispersants throughout Prince William Sound and open burning, the environmental damage from the spill would have been significantly mitigated.

Q: As I said in my statement, I have introduced legislation to protect the American taxpayer. One objective of the bill is to eliminate federal tax deduction for inadequate cleanup of oil and hazardous substance spills. I want to confirm with you if Exxon can take a federal tax deduction for its cleanup and restoration efforts, therefore making the taxpayer pay for the cleanup. Can you take a deduction?

Exxon is a large U.S. taxpayer - in 1988 Exxon's U.S. federal tax expense was $806 million on U.S. operations. Exxon is paying for shoreline cleanup and restoration as part of the cost of operations. To the extent clean-up costs exceed insurance coverage, they will reduce Exxon's taxable income.

Q: One response to a tax deduction could be that those hired to clean up and restore will pay income taxes. But doesn't that mean Exxon still would not pay for the cleanup, and the public still would, because Exxon's expenses to employ or contract others are tax deductible?

To the extent payments to contractors and others constitute income to them, they will be subject to federal income tax. See reply to prior question re Exxon's expenses.

Q: Why should the American taxpayer pay for this spill?

The American taxpayer will not pay for this spill.

Q: Does Exxon have insurance coverage to pay for Corporate expenses associated with this spill?

Exxon has insurance in substantial amounts to deal with legal liabilities and clean-up expenses resulting from oil spills. We have paid premiums for such coverage for years. Recovery from this insurance and other arrangements may exceed $400 million.

Q: What are Exxon's expenses to date due to the spill, and what do you project your total expenses will be?

We have included in our first quarter earnings statement a loss of $30 million to cover the cost to lighter, salvage, and repair the EXXON VALDEZ. Clean-up expenses paid as of mid-May were approximately $115 million. We do not, at this time, have an estimate of the total costs of the spill, including damages, claims, lawsuits, etc.

Q: Is there a fund accumulated by oil companies to help Exxon pay for the cleanup or compensation?

Exxon participates in various industry oil spill insurance arrangements. As a shipper of North Slope crude, we have contributed to the Trans-Alaska Pipeline Liability Fund, which was established by law and is also available to compensate certain claimants.

Q: Will part of the costs of cleanup and compensation be passed on to the consumer through increased gasoline prices?

The idea that Exxon expects the consumer to pay the cost of the spill is ridiculous. Gasoline prices are set by the interactions of thousands of individual sellers and buyers who operate in a very competitive market. Exxon must price its products at market levels for its dealers and distributors to compete. The marketplace will not permit any unusual costs incurred by a particular supplier, like the costs necessary to clean up the oil spill in Alaska, to be recovered in the marketplace. Those costs must be absorbed by the supplier.

SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
ENVIRONMENTAL PROTECTION SUBCOMMITTEE

Follow-Up Questions for Oil Spill Hearing Record (4/19/89)
From Senator Chafee

Q: Mr. Stevens, can you provide for the Committee an estimate of total clean-up costs and total damages (economic and environmental) including current and projected costs?

We have included in our first quarter earnings statement a loss of $30 million to cover the cost to lighter, salvage, and repair the EXXON VALDEZ. Clean-up expenses paid as of mid-May were approximately $115 million. We do not, at this time, have an estimate of the total costs of the spill, including damages, claims, lawsuits, etc.

Q: What is the value of the oil that was lost in the spill?

The value of the spilled oil was approximately $4 million.

Q: What was the value of the entire shipment aboard the EXXON VALDEZ?

The value of the full cargo was approximately $20 million.

Q: How do you dispose of oil collected by the skimmers? Is any of it recoverable?

We are currently concentrating our efforts on collecting as much of the spilled oil as possible. The oil and water emulsions (mixtures) presently being recovered from skimming operations are being temporarily stored in barges. The Shoreline Cleanup Plan submitted to the Coast Guard on May 1, 1989, includes the following disposal plan for the recovered oil.

The water from these barges will be drawn off to a separate "water" barge and then sent to Alyeska's Ballast Water Treatment System. The remaining oil in the barges is intermixed with kelp and trash and may not be pumpable. The current plan is to add fresh oil and/or demulsifiers to make the oil pumpable and break the emulsions. The oil would then be strained and pumped into a "clean" oil barge. This oil would be further cleaned, if needed, and transferred to an Exxon tanker for shipment to a refinery for processing into petroleum products.

Oil that is too contaminated for refinery processing will be processed at Alyeska's crude tank sludge pit. The resulting solid material will be incinerated.

SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
ENVIRONMENTAL PROTECTION SUBCOMMITTEE

Question from Hearing Transcript (4/19/89) from Senator Chafee

Q: Is it feasible for tankers to carry booms aboard them with small boats to set them up?

A vessel which has suffered while underway a casualty of enough significance (e.g., collision, grounding) to cause an oil spill is unlikely to be in any condition to deploy equipment even if such equipment were aboard. Of necessity, all efforts of the crew will be directed towards saving the vessel and its remaining cargo and towards moving it to a safe anchorage if possible. Furthermore, it could be very difficult and possibly dangerous to launch small boats to deploy boom and other equipment with the vessel in a precarious situation.

STATEMENT OF IVAN L. HENMAN
VICE PRESIDENT, ENVIRONMENT AND ENGINEERING
ALYESKA PIPELINE SERVICE COMPANY

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION
OF THE SENATE COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS

April 19, 1989

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE: I am Ivan Henman, Vice President of the Alyeska Pipeline Service Company in charge of Environment and Engineering. Also with me today is Theo Polasek, our Vice President in charge of Operations. We will discuss the March 24 grounding of the EXXON VALDEZ and the subsequent oil spill, our response to that occurrence, and our ongoing commitment to protecting the environment in which we live and work. George Nelson, the President of Alyeska, regrets that he is unable to appear this morning due to medical reasons.

We submit the following comments on behalf of Alyeska, and, where appropriate, the companies which own the Trans Alaska Pipeline System. In subsequent discussions, I plan to handle questions on air and water quality issues. Mr. Polasek will address those questions related to the oil spill.

As has already been expressed several times this morning, the March 24 oil spill is a tragedy for everyone involved. Witnessing the spread of the oil and its impact on the environment has been especially painful for the people of Alyeska. We have always been committed to the dual goals of

protecting the environment in which we live and ensuring the flow of strategically important energy resources to the Lower 48 States.

To place this incident in historical perspective, we have been transporting oil through the Trans Alaska Pipeline and shipping from the Valdez Terminal since August 1977. Over 8700 tankers have left port carrying more than 6.7 billion barrels of crude oil. Through March 23, we had successfully dealt with a number of oil spills from vessels in the Valdez trade without any significant harm to the environment. The total crude oil spilled in Port Valdez before the EXXON VALDEZ grounding was approximately 1,930 barrels. Prior to 1989, the total was less than 200 barrels. The largest previous incident was in January of this year involving a spill of about 1700 barrels; essentially all of the oil was recovered.

We have had an Oil Spill Contingency Plan on file with the appropriate government agencies since inception of operations in August 1977. The Contingency Plan is periodically reviewed and approved by both state and federal agencies. The last approved revision was in 1987.

The original project description, Environmental Impact Statement, and subsequent oil spill response plans all reflected the judgment that "it is highly unlikely a spill of this magnitude [i.e., 240,000 barrels] would occur." Nevertheless, a 200,000 barrel response scenario was included in the 1987 Plan. The Plan indicated that in the event of a

large spill, all oil discharged would not be contained and that outside resources would be required.

Both the Plan and our implementation of the Plan assumed that a sudden, almost instantaneous spill of this magnitude required four basic strategies: (1) that top priority might be placed by the Coast Guard on preventing additional spillage from occurring by expediting lightering operations; (2) that dispersants and burning be used as quickly as possible; (3) that nearby sensitive areas be rapidly protected; and (4) that containment and clean-up equipment be immediately marshalled from available sources worldwide.

I will comment on Alyeska's immediate response on March 24 in implementing those strategies. We presume that Exxon will comment on the later activities which it controlled. I hope the Subcommittee will appreciate that neither I nor Mr. Polasek has direct personal knowledge of all of these events and that the effort to put together a complete factual picture is an on-going one in connection with both pending civil litigation and criminal inquiries by the state and federal governments.

Upon notification of the vessel grounding, Alyeska emergency teams were immediately activated at the Terminal and in Anchorage. Coast Guard approval to use dispersants and burning was verbally requested by Alyeska about 2 hours after notification of the spill, and the request was confirmed in writing in accordance with Coast Guard instructions. Staging

of lightering, containment and clean-up equipment was also immediately initiated. Given the conditions that existed, actions specified by the Plan were carried out in a timely manner. Equipment operated as expected. We deployed about 40 Alyeska and contractor people to the scene of the spill in less than 10 hours. The trained crews performed admirably. In the final analysis, we believe the facts will show that any difficulties in deploying the initial containment equipment had little if any impact on the ultimate outcome.

Throughout that first day, Alyeska concentrated on achieving the major objectives of the Contingency Plan. The first objective involved our cooperation in implementing the Coast Guard's decision, with which we were in complete agreement, that the top priority was to remove all remaining crude oil, some 1,000,000 barrels, off the EXXON VALDEZ. Secondly, we worked to prevent the spread of the oil slick to environmentally sensitive areas near the spill and to control its spread by deploying some 25,000 feet of containment boom so that dispersants could be used most effectively.

We at Alyeska recognized early on the first day of the spill the importance of using dispersants as provided for in the Contingency Plan. We initiated various actions to ensure the positioning of equipment and personnel necessary for their full and timely use. As you may be aware, dispersants are materials that, when applied to an oil slick, reduce surface tension and allow the oil to become entrained in the water as

fine droplets that are then dispersed by currents and subjected to natural processes such as accelerated biodegradation. The Contingency Plan currently in effect, which was approved by federal and state agencies, emphasizes that an immediate request for authority must be made and approval must be given rapidly for dispersants to be used effectively.

Exxon was notified of the spill within the first hour after its occurrence. Exxon's shipping management arrived on the scene within 18 hours and immediately assumed control of lightering and dispersant approvals. Exxon then assumed control of all other operations on a phased basis. Nonetheless, Alyeska continued support and logistics for equipment, materials, and contracts for several more days.

We have learned from this experience and are continuing to learn. Alyeska and its owner companies have been working closely with state and federal agencies since this event to identify actions that might be taken to prevent such a tragedy from recurring. The three major owners announced a number of steps that they and Alyeska are undertaking immediately to improve protection. These include preventive steps such as drug and alcohol testing of vessel crew members, increased pilotage and tug escorts, and measures to improve response to a spill, such as more skimming and booming capacity and increased on-site availability of dispersants and dispersant systems. After the owner companies' announcement, the Alaska Department of Environmental Conservation issued an

Emergency Order setting forth its requirements for enhanced protection. We and the owners concur with the intent of this Order, as our own plan and the State's requirements generally parallel one another. We are working with the State to develop mutually agreeable short-term and longer-term plans for implementation.

We also would like to comment briefly on the second issue in which the Committee has expressed an interest -- that of the adequacy of federal regulation and oversight of oil transportation from the Valdez Terminal. A key point that needs to be addressed is the decisionmaking process for use of dispersants and burning. It is essential that clear-cut regulations and procedures be in place to ensure rapid use of the most effective measures available to manage the type of spill being encountered. It must be clearly stated that dispersants and/or burning are acceptable approaches without additional testing or delay. To facilitate this, a well-defined decisionmaking process headed by a single authority should be established.

I would now like to address briefly the other environmental issues the Subcommittee has raised. One of those issues relates to air quality, particularly around the oil storage facility at the Valdez Terminal. We have been and are operating well within applicable emission control requirements and ambient air quality standards at the terminal. Alyeska has taken steps, beyond those required by law, to reduce air

pollutant emissions. In addition, a number of operational improvements have been made that have dropped fuel burning emissions to roughly one-fifth the level originally anticipated.

From time to time, we have been requested by the EPA and the Alaska Department of Environmental Conservation to submit data regarding our operations and changes which have been incorporated over the years. We have responded in a timely manner to each request, and none is currently pending. We have also offered to work with ADEC on a comprehensive review of the adequacy of our current emission controls and a rewriting of our permits. We expect this effort to move forward.

In addition to its oil storage and loading facilities, Alyeska operates a ballast water treatment facility at the Valdez Terminal. The terminal facility is required to treat the ballast water from those tankers calling at the Terminal that do not have segregated ballast systems. This ballast water contains some oil entrained from the walls of the tanker compartments. The facility removes the oil from the ballast water prior to discharging that water.

As with its air emission permits, Alyeska consistently operates within the requirements of its National Pollutant Discharge Elimination System (NPDES) permit, which has been issued by the EPA under the Clean Water Act and certified by the State of Alaska. The original permit contained limits on oil and grease as the principal control on hydrocarbons in the

discharged water, and, with a few exceptions, Alyeska consistently has operated well below those limits. When the permit was renewed in 1980, it also contained limits on certain aromatic hydrocarbons that become dissolved in the ballast water.

In 1986, Alyeska voluntarily installed a biological treatment system in the wastewater impound basin to reduce further these dissolved aromatic hydrocarbons. The result was an 85 percent reduction. In November 1988, the EPA issued a proposed final NPDES permit to replace the current permit. In the fact sheet supporting the proposed permit, the EPA declared that the biological treatment system installed by Alyeska constituted the Best Available Technology Economically Achievable. Moreover, extensive scientific studies of the Port Valdez environment show that marine life in the Port has not been harmed by discharges from the treatment facility. Among the most important studies are those having been conducted by the University of Alaska's Institute of Marine Science and the National Oceanic and Atmospheric Administration.

The EPA's proposed NPDES permit sets strict limits for the discharge of certain aromatic hydrocarbons based on what is achievable with biological treatment and on what is needed to meet state water quality standards. Although Alyeska believes that the state water quality standards are improperly derived and applied, it is willing to comply with the EPA's proposed limits. The State has, however, added numerous conditions to

the permit in the state certification process under Section 401 of the Clean Water Act. Alyeska is currently attempting to resolve those conditions through a series of meetings with ADEC as well as administrative adjudicatory hearings.

As stated at the beginning of this presentation, Alyeska pursues the dual goals of protecting the environment in which we live and work and ensuring the flow of important energy resources to the people of this country. Mr. Polasek and I, as well as all of the other people of Alyeska who live and work in Alaska's beautiful and fragile environment, are fully committed to realizing both of these goals and ensuring that these recent events are never repeated.

We will now try to respond to your questions.

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GIBSON, DUNN & CRUTCHER
LAWYERS
1050 CONNECTICUT AVENUE, N.W.
WASHINGTON, D.C. 20036-5303

(202) 955-8500
TELEX: 892501 GIBTRASK WSH
TELECOPIER: (202) 467-0539

LOS ANGELES
333 SOUTH GRAND AVENUE
LOS ANGELES, CALIFORNIA 90071-3197

CENTURY CITY
2029 CENTURY PARK EAST
LOS ANGELES, CALIFORNIA 90067-3026

NEWPORT BEACH
800 NEWPORT CENTER DRIVE
NEWPORT BEACH, CALIFORNIA 92660-6396

SACRAMENTO
1100 F STREET
SACRAMENTO, CALIFORNIA 95814-2626

SAN DIEGO
1600 B STREET
SAN DIEGO, CALIFORNIA 92101-4520

SAN FRANCISCO
ONE MONTGOMERY STREET, TELESIS TOWER
SAN FRANCISCO, CALIFORNIA 94104-4505

SAN JOSE
ONE ALMADEN BOULEVARD
SAN JOSE, CALIFORNIA 95113-2287

SEATTLE
701 FIFTH AVENUE
SEATTLE, WASHINGTON 98104-7089

JAS. A. GIBSON, 1953-1982
W. E. DUNN, 1959-1975
ALBERT CRUTCHER, 1960-1983

NEW YORK
200 PARK AVENUE
NEW YORK, NEW YORK 10166-0193

DALLAS
1700 PACIFIC AVENUE
DALLAS, TEXAS 75201-4912

DENVER
1801 CALIFORNIA STREET
DENVER, COLORADO 80202-2684

EUROPE
104 AVENUE RAYMOND POINCARÉ
75016 PARIS, FRANCE

LONDON
30/35 PALL MALL
LONDON SW1Y 5LP

HONG KONG
1 DUDDELL STREET
HONG KONG

TOKYO
1-3 MARUNOUCHI CHIYODA-KU
TOKYO 100 JAPAN

AFFILIATED SAUDI ARABIA OFFICE
CHAMBER OF COMMERCE BUILDING
P.O. BOX 1586 TO
RIYADH 11454, SAUDI ARABIA

June 2, 1989

WRITER'S DIRECT DIAL NUMBER

(202) 887-3579

OUR FILE NUMBER

T 01207-00001

Mr. Robert Davison
Professional Staff Member
Senate Committee on Environment and
Public Works
Dirksen Senate Office Building, Room 458
Washington, D.C. 20510

Re: Written Follow-Up Questions to Alyeska Witnesses at the April 19 Hearing of the Subcommittee on Environmental Protection

Dear Bob:

Attached are the responses of Ivan Henman to the written questions of Chairman Baucus, and Theo Polasek's responses to the written questions of Senator Reid.

Please call if you have any questions.

Yours sincerely,

Robert A. McConnell

Enclosures

cc: Alfred T. Smith, Esq.
Robert I. Shoaf, Esq.
Mr. Ivan L. Henman
Mr. Theo Polasek
Quinn O'Connell, Esq.

IVAN HENMAN'S RESPONSES TO QUESTIONS POSED BY SENATOR BAUCUS

A.1. Question: Do you agree that there was an understanding that there would be expansion of the treatment facilities at Valdez as flow increased?

Answer: No. With respect to the ballast water storage tanks, there was a plan to build two more tanks when ballast water flow into the facility reached a particular level, not when crude throughput alone increased to a certain level. At the time the facility was designed, it was assumed that ballast water flow would increase at the same rate as crude oil throughput flow. That assumption was incorrect. The ballast water levels that would have triggered the construction of the additional tanks was never reached. Instead, the increased use of segregated ballast water tanks in the evolving tanker fleet transporting North Slope crude oil has kept ballast water flow at the level for which the current number of ballast water storage tanks was designed.

The same is true of the additional crude oil storage tanks and incinerator that were projected to be necessary when crude throughput reached two million barrels a day. 32 crude oil storage tanks and four incinerators were expected to be needed, but only 18 storage tanks and three incinerators were built. Had the tankers servicing the terminal remained the size they were in the early 1970s, the additional crude oil storage tanks, along with the incinerator to consume the waste gases the additional tanks would produce, may have been necessary. The larger tankers now calling at the port are able to carry the crude away on a schedule that matches the pipeline rate, so that the storage capacity at the terminal that was originally thought to be necessary at the maximum flow rate of the crude oil was never needed. As a consequence, the incinerator designed to accommodate the emissions of the additional tanks anticipated by design specifications was never needed.

A.2. Question: Have the improvements to the terminal been made as planned? Why not?

Answer: Everything necessary to accommodate the crude oil and ballast water flow rates has been built at the terminal. Where volumes of a particular substance did not increase, additional facilities were unnecessary. I know of no actual improvements to the terminal that were planned but not built.

A.3. Question: Has Alyeska had any financial constraints which would prevent it from carrying out commitments to comply with environmental commitments?

Answer: No. Alyeska has committed the necessary resources for ballast water treatment and control of air emissions to ensure compliance with all applicable laws.

A.4. Question: Would it be fair for the Congress to conclude that Alyeska's commitment to environmental safeguards has been inconsistent, at best, and to factor that into our judgments concerning proposals for expansion of drilling?

Answer: Not at all. Alyeska has taken a number of voluntary steps to ensure compliance with environmental requirements. In September 1986, on its own initiative Alyeska installed a biological treatment system in the impound basins of the ballast water treatment facility and reduced the concentrations of benzene, ethylbenzene, toluene, and xylene (BETX) discharged in the effluent by 85% on an annual basis. The biological treatment system has also virtually eliminated the discharge of naphthalene and polynuclear aromatic hydrocarbons in detectable quantities. With respect to ballast water treatment, the success of Alyeska's efforts to protect the environment have been documented by studies conducted by eminent scientists who have found no significant adverse impact attributable to the ballast water treatment facility's discharge.

The same is true of Alyeska's controls on emissions of air pollutants. In fact, Alyeska's air emissions are well below the level contemplated and permitted by the original design. Alyeska operates a vapor recovery system to capture the hydrocarbon gases produced in the crude oil storage tanks at the Valdez marine terminal. No equipment controls on hydrocarbon emissions are required by the Clean Air Act for facilities built at the time of the pipeline and the terminal. EPA has confirmed this in writing. Nonetheless, Alyeska remains fully committed to operating and maintaining them. In fact, it is currently expending $15 million to restore the waste gas incinerators to their original design capacity.

B.1. Question: The current [Clean Water Act] permit was due to be reissued in 1983 and still has not been issued today. The GAO investigated the issue in 1987. They identified "significant violations" and limited EPA compliance resources, and recommended immediate action. The draft permit now under consideration would reduce allowable discharges of BTX to 25% of current levels. There is concern that these discharges have caused violations of water quality standards and contributed toxics to sediments of the Harbor and Sound. Do you agree with the basic facts of this situation?

Answer: No. Although it is true that the current National Pollutant Discharge Elimination System Permit (NPDES Permit) was to have been reissued in 1983, the delay in the issuance is not attributable to Alyeska's actions. Alyeska applied for the reissuance of the permit eleven months before the prior permit was scheduled to expire, which was five months earlier than EPA's regulations required it to apply. Every information request by EPA and the Alaska Department of Environmental Conservation (ADEC) in the renewal of the NPDES Permit has been met in a timely fashion. The permit was reissued by EPA on May 8, 1989.

The GAO report unfortunately created an inaccurate impression of the status of Alyeska's ballast water treatment facility's permit and the quality of its effluent. The "significant violations" GAO referred to occurred in the period between 1977 and 1983. Individually, the "violations" could not be considered significant. For example, Region X of EPA considered the exceedences of pH limitations which occurred in July 1980 and June 1982, and which accounted for the bulk of the "violations", to be minor. Apparent exceedences of BETX limitations during that period resulted from contract laboratory problems which Alyeska discovered during a quality control audit, not from any actual increase in the pollutants discharged. As a consequence, GAO's references to these exceedences as "significant violations" is puzzling. In addition, because of the report's focus on the past rather than on the performance of the facility as it is now operated, it failed to note that exceedences of the BETX effluent limitations have been virtually non-existent since January 1984, with no exceedences since April 1986. There is no disputing the dramatic reduction of BETX in the effluent since the biological treatment system was installed in September 1986.

Alyeska does not believe that its facility's discharge violates water quality standards that are properly applied and interpreted. Reports spanning from the time before the terminal was constructed to the present have confirmed that the environment in Port Valdez has not been adversely affected by the discharge from the ballast water treatment facility. Studies performed in 1987 found that, since the installation of the biological treatment system, concentrations of aromatic hydrocarbons in the sediments in the vicinity of the ballast water treatment facility's discharge pipe had declined to below the limit of quantification . There is no reason to believe that the presence of aromatic hydrocarbons in concentrations below the quantification limit would have deleterious effects on marine life.

B.2. Question: <u>This seems to be a case of Alyeska playing for time while overworked government agencies try to identify noncompliance and develop more appropriate treatment mechanisms. [Is it] your view that Alyeska's responsibility to environmental protection is to provide the minimum compliance demanded by such agencies?</u>

Answer: No. It is Alyeska's policy to comply with the law. Demands by particular agencies do not drive Alyeska's compliance. Alyeska's voluntary steps to control air emissions and to reduce the concentrations of BETX in its wastewaters illustrate its desire to reduce the potential for environmental effects from its operations, quite apart from agency demands.

B.3. Question: <u>Do you think that this concept of "minimal compliance" with environmental safeguards contributed to the most recent spill?</u>

Answer: As explained above, in my response to question B.2, "minimal compliance" is not an accurate characterization of Alyeska's past actions or policy with respect to environmental protection. Alyeska compliance has anticipated, preceded and frequently exceeded legal requirements.

I do not know what the ultimate cause of the EXXON VALDEZ spill was because the tanker is outside the control of Alyeska.

C.1. Question: Is Alyeska satisfied with the operation of the vapor recovery system?

Answer: The number of breakdowns and malfunctions has not been satisfactory. The vapor recovery system is currently being repaired and restored to improve its reliability. Although the vapor recovery system is not required by law for capturing the emissions from the crude oil storage tanks, Alyeska has committed several million dollars to repairing them and expects to continue to operate them.

The vapor recovery system at its design capacity is capable of recovering and incinerating all emissions produced from the crude oil storage tanks, including those attributable to the natural gas liquids in the crude oil. After the repairs to the incinerators, the system will be adequate to meet any demands placed on it by the presence of natural gas liquids in the crude stream. Of course, natural gas liquids have always been part of the crude stream.

C.2. Question: Why have incinerators had such problems and what is being done to correct these problems?

Answer: The incinerators have, in the past, experienced premature failure of the refractory which provides the thermal insulation that protects the incinerator shell. The failure of the refractory appears to stem from thermal shock to the refractory which may have resulted when the incinerators were operated over a wide range of temperatures.

All the incinerators are being restored. We expect that the work on them will be completed this fall.

THEO POLASEK'S RESPONSES TO QUESTIONS POSED BY SENATOR REID

1. Question: It has been over 3 weeks since the spill. What percent of the oil spilled is now cleaned up?

Answer: Because the responsibility for the clean-up was assumed by Exxon during the first weekend after the grounding of the EXXON VALDEZ, Exxon should be able to respond to this question.

2. Question: Why was there no containment plan ready to go?

Answer: Alyeska's Oil Spill Contingency Plan, copies of which were furnished to the Subcommittee prior to the hearing, was approved by the appropriate state and federal agencies, was in place on March 24, and was implemented as soon as word of the grounding and the nature of the spill was communicated to Alyeska personnel at the Valdez Terminal. We have trained all of our Technical personnel at the Terminal to be part of the Oil Spill Response Team. They all receive at least 8 hours/year of training. Drills are routinely held and witnessed by the State of Alaska. The Coast Guard also observes these drills. We have proven over and over again that we can perform but never had we been tested by a giant spill as large as the EXXON VALDEZ.

3. Question: Why was there no clean-up plan ready to go with the necessary equipment and personnel readily available for action?

Answer: As indicated above, Alyeska's Contingency Plan was ready and was implemented immediately after notification of the grounding. The first assist tug was dispatched four minutes after the call was received and all other required actions were set in motion immediately. Other equipment specifically called for in the Contingency Plan was in fact available with the exception of an ax, 2 rolls of chicken wire used primarily in land-based spills, a power block and 310 feet of backfence boom designed for use around a berth. More than 1000 feet of other containment boom above that required was sent out on the first barge. In addition, all personnel contemplated by the Contingency Plan for the initial response to a spill, a total of 25, were available within an hour along with additional personnel who had been called in to assist. A copy of a Valdez Terminal Emergency Center Coordination Efforts (Partial Time Line - First 24 Hours). This has also been provided to the National Transportation Safety Board.

4. Question: Was there an inventory of available equipment and supplies to contain and clean up oil spills in Prince William Sound?

Answer: There was the inventory of equipment on hand and available for Alyeska's use in carrying out its responsibilities under the Contingency Plan to initially respond to such a spill. It was always anticipated and clearly expressed in the plan that in the event of a really large spill additional boats, booms, skimmers, etc. would be flown or trucked in from other co-ops in the state, from other port co-ops in the U.S. and the U.S. Coast Guard strike team. This is no different than flying in fire fighters from other areas to assist in a really big fire.

5. Question: If an inventory was not available, why not?

Answer: As explained above, there was a complete inventory available of equipment called for in the Contingency Plan respecting Alyeska's responsibility for the initial response to the spill.

6. Question: When was the last time a practice drill was conducted by Alyeska or Exxon to test their readiness to contain and clean up large oil spills in the Prince William Sound area?

Answer: Alyeska is continually testing the ability of its people to respond to oil spill emergencies. We require Alyeska personnel to attend comprehensive training programs, and we conduct drills regularly to test the ability of our personnel to respond to oil spills. Our technicians' advancement is related, in part, to their ability to demonstrate expertise in spill containment. Government officials observe our drills and are provided with training histories of our employees. Government officials have participated in desk-top and on-the-water drills held to test communications and coordination in connection with a spill emergency. A major spill desk-top drill was conducted in May, 1988 by ARCO and Alyeska, with representatives of Exxon and BP as observers. This was a three-day drill simulating a 5,000 bbl spill at Potato Point, just outside the Narrows. That drill included participation by the State Department of Environmental Conservation, NOAA, other members of the Regional Response Team, the City of Valdez, the Coast Guard, oil spill experts on dispersants and burning, and all support functions of Alyeska. The drill was designed to test Alyeska's initial response, the hand-off transition to the responsible party (in this case, ARCO), and exercising the Coast Guard and the Regional Response Team in making the decision to use dispersants and burning. As a matter of interest, dispersants and burning were approved for use in the drill. The third day

of the drill included exercising our skimmer and booming equipment for demonstration to interested participants in the drill. We were given high marks by all who participated.

In January of 1989 we had the opportunity to exercise the Alyeska response in responding to a 1700 bbl spill and a 60 bbl spill, both at the Valdez Marine Terminal. The responses were immediate and totally effective. All comments, even by the State of Alaska, were extremely complimentary. In fact, our clean-up efforts were so effective they were non-media events.

VALDEZ TERMINAL EMERGENCY CENTER COORDINATION EFFORTS
(PARTIAL TIME LINE - FIRST 24 HOURS)

Date	Approx Time	Event
3/24/89	0025	USCG calls Barnum (acting marine operations supervisor) and reports tanker hit/aground on Bligh Reef. Barnum begins mobilizing equipment and 11 on-duty Alyeska crew. Barnum notifies OCC. OCC night personnel commence notification of federal and state agencies and of designated Alyeska personnel and contractors per Alyeska "hierarchy of response."
03/24/89	0025	STALWART, pursuant to Coast Guard order; departs immediately from Crowley dock to go to the aid of the EXXON VALDEZ on Bligh Reef.
03/24/89	0030	SEA FLYER ordered to standby at Crowley dock awaiting orders to depart.
03/24/89	0045	McCall tells Shier oil in water but no discussion as to amount--just sheen in the water.
03/24/89	0100	PATHFINDER ordered to standby.
03/24/89	0115	Valdez Emergency Center opened by Jim Wilson (Alyeska) and Dave Hutton (Crowley).
03/24/89	0130	Emergency Center Anchorage opened.
03/24/89	0202	Status from Crowley. There are two hydro train barges, 100' x 400', in Whittier. RIG ENGINEER in Cook Inlet.
03/24/89	0236	Claude Robinson suggests calling Al Allen for consultation purposes.
03/24/89	0238	Steve McCall (USCG) calls and reports ship still aground, oil sheen on water, and oil coming out.
03/24/89	0241	G. Nelson and others discuss use of dispersants.
03/24/89	0245	STALWART arrives at EXXON VALDEZ, Bligh

		Reef.
03/24/89	0256	L. Shier and J. Wilson discuss deployment of additional equipment and people. Need 11 more Alyeska crew and 15 contractors.
03/24/89	0300	J. Runnels contacted and directed to mobilize his off shift crew.
03/24/89	0300	KAVIK tug requested from Crowley.
03/24/89	0300	Price, an Independent Contractor, contacted. Request made for his people.
03/24/89	0320	Alyeska told tanker is stabilized; starboard, slop tank, wing tank, and five center tanks are damaged.
03/24/89	0320	Weather update - Wind east at 15 knots, 3 ft. seas. Over next 48 hours, can shift from northeast to southeast.
03/24/89	0325	Alyeska given spill update: USCG reports to Shier 138,000 barrels lost. Most oil on port side.
03/24/89	0330	McKay calls out crane riggers. Will be sending mechanic out with equipment from Earthmovers.
03/24/89	0350	Alyeska and Exxon discuss obtaining approval for use of dispersants.
03/24/89	0353	Biegert Aviation already contacted regarding dispersant application.
03/24/89	0400	O'Donnell authorizes Sue Smith to issue anything needed. In addition, L. Smith, a buyer, will be coming to Valdez.
03/24/89	0425	USCG says vessel still on rocks. There is concern for its stability.
03/24/89	0430	Shier requesting helicopter dispersant spray equipment from CIRO and identifies tanker for lightering.
03/24/89	0445	USCG directs that lightering be given priority and suggests that 400,000 bbls be pumped off within 36 hours using 2 six inch hoses.

03/24/89	0450	G. Dupree arrives on scene. Charter from Anchorage leaving at 0600.
03/24/89	0458	(1) Shier updates O'Donnell. EXXON BATON ROUGE due on scene at 10 AM. Expedite all lightering gear and strip hose from ships alongside.
03/24/89	0458	(2) Call Kelsey/Copper - Chevron Dock for any available hose. USCG advises of concern about stability of ship.
03/24/89	0503	C. O'Donnell updates G. Dupree - move the PCM to town. Set up in Westmark for Exxon people.
03/24/89	0505	C. O'Donnell directs Bogart to monitor USCG for us.
03/24/89	0507	Two trucks of additional sorbent ordered by McElrath.
03/24/89	0515	C. Robinson reports that chopper will arrive at first light. Arranging backup if needed.
03/24/89	0519	Contract smaller boats from Valdez - start list of people. McCall (USCG) okays Bogart to act as liasion.
03/24/89	0522	Shier advised Hutton (Crowley tug operations manager) of priority lightering - SEA FLYER will take out lightering equipment.
03/24/89	0523	Bogart is on his way to USCG.
03/24/89	0524	Dave Cooper from Homer. He has 160' oil spill boat available if needed.
03/24/89	0526	Valdez Dock has no 6" hose. ASPEN 2 - 50' x 8" and ARCO INDEPENDENCE 3-3' x 8"..
03/24/89	0539	O'Donnell talks to a Kennewick ERA helicopter pilot who is getting 6 passenger helicopters.
03/24/89	0540	USCG reports spill of 210,000 bbls at this time. Set up off bow and downwind w/equipment. To expedite deployment of lightering gear, blow up fenders

		partially en route, finish at destination.
03/24/89	0540	On-scene commander will be J. Baldridge. Port shut down, closed 24-48 hours. Ships in port will be topped off within 48 hours.
03/24/89	0540	Weather update: Wind E. at 10-15 knots, waves 1-1 1/2 chop.
03/24/89	0544	VINCE PEEDE on standby. Discussion of additional equipment needed.
03/24/89	0545	Helenka B at Two Moon Bay will get 6" hose from Knowles Head. CHEVRON CALIFORNIA and ARCO CALIFORNIA each have two 25' hoses. If ADMIRALITY BAY anchors in time, it does, too.
03/24/89	0608	Shier updates Nelson.
03/24/89	0611	Discussion with S & C regarding possible support. Setting up Westmark upstairs for Exxon Contingency Team.
03/24/89	0611	O'Donnell and Brown leaving in first chopper.
03/24/89	0620	Continuing discussions with Crowley regarding tank barge.
03/24/89	0620	Security Air helicopter to arrive 0650.
03/24/89	0630	McCall (USCG) and Alyeska discuss start of process for requesting use of dispersants. Alamar, Helenka B (56' landcraft) at Two Moon Bay will get underway form Knowles Head 0830.
03/24/89	0640	SEA FLYER ready to load lightering gear.
03/24/89	0646	O'Donnell and Wilson leave to meet helicopter.
03/24/89	0700	Stan Stevens advises that the VINCE PEEDE is ready and all supplies are loaded, including food. Will stay on Channel 16 - can get SPIRIT, if needed.
03/24/89	0706	USCG (D. J. Toll) is on site at Valdez terminal.

03/24/89	0708	Ship lost oil tanks 1, 2, 3, 4 and 5. 1 center; 1, 3, 5 starboard tanks; S and B slop tank.
03/24/89	0715	Robinson told Greenlee to call PH Maintenance crew in and send down to J. Runnels.
03/24/89	0740	R. K. Brown updates L. Shier.
03/24/89	0812	C. O'Donnell/J. Wilson - Updates L. Shier on EXXON VALDEZ after helicopter overflight.
03/24/89	0902	Rex Brown Calling 371EH helicopter back. McCall (USCG) authorizes waiver for suits on tugs.
03/24/89	0906	Refuel and take USCG out to land EXXON VALDEZ (helicopter estimated time of arrival 20 minutes at ERA).
03/24/89	0912	30 ETD lightering equipment. Need to load remaining Yokohamas and pick up hose from ARCO INDEPENDENCE.
03/24/89	0913	EXXON BATON ROUGE abeam Naked Island.
03/24/89	0915	Crowley has 1,000 ft. expandable boom.
03/24/89	0921	Tugs leaving within 15 to 20 minutes.
03/24/89	0924	Large chopper 212. Polasek, Nelson and two Exxon people going straight to ship.
03/24/89	0930	Depart Crowley enroute to Fluor dock, Alyeska Terminal.
03/24/89	0933	SEA FLYER estimated time of departure 0950. Barge estimated time of depature 1000 to EXXON VALDEZ.
03/24/89	0942	Dupree updates O'Donnell on phones, etc., here and at Westmark.
03/24/89	0943	SEA FLYER estimated time of arrival at the EXXON VALDEZ 1200. Barge estimated time of arrival at 1330 at the EXXON VALDEZ.
03/24/89	0950	SEA FLYER load 3 hoses from ARCO INDEPENDENCE.

03/24/89	0952	Night crew call out: 15 people for price; all of P. Sarnacki's crew, 3 mechanics and 1 crane operator.
03/24/89	0954	Harry Swanson animal shelter set up for bird clean up.
03/24/89	0959	Durley arranging with CIRO to air transport 2 helicopter dispersant spray systems and two techns. Also sending fire boom and helitorch. ERA helicopter - 1 coaster enroute.
03/24/89	1000	Contact JEFFREY FOSS and 30,000 bbl barge in Cordova to proceed to scene. ETA on-scene 1800.
03/24/89	1010	SEA FLYER departs VT bound for Bligh Reef and EXXON VALDEZ. Nine passengers onboard from Alyeska.
03/24/89	1012	7000 ft. containment boom on barge. 3700' sorbent boom, 2-1,000 gallon bladders, light plant, air compressor, Hiab & Sea Skimmer, parts & supplies.
03/24/89	1012	Martec sending 85' boat this way.
03/24/89	1022	2-3 fuel trucks from Fairbanks and 4 DRA tankers.
03/24/89	1024	(1) Sarnacki to call with available people for tonight. SEA FLYER - all lightering equipment ETA 1200 hours. PATHFINDER (J. Baldridge): Barge - towed; 26' Grayling - own power, 2 vikomas; Class V - towed; (2) PATHFINDER (Baldridge): Barge towed; 26' Grayling-own power, 2 vikomas; Class V & VII, towed; 26' Monarks-own power, 1 vikoma; (3) EQUIPMENT ON WAY; aly-4 DRA tankers 6000 gal. ea.; CIRO: 6-4,000 gallon bladders up and boom; buckets, ACS: 8,000 ft sea boom.
03/24/89	1039	Additional boom and bladders on way from Kenai. Delivery of helicopter dispersant packs being coordinated.
03/24/89	1045	G. Nelson calls C. O'Donnell for update.
03/24/89	1048	Phones in at Westmark per G. Dupree.

03/24/89	1049	Baldridge reports Barge 126 pulling away from dock to hook up with PATHFINDER.
03/24/89	1050	Class V and Class VII left. Paul Frank, night coordinator to relieve Jean Trantham.
03/24/89	1100	3 sea skimmers, 1 heavy sea skimmer, 4 power paks, 10 bladders, 7 tons each, 2 mini skimmers, 2 vac units, 2 submersible pumps, misc. equip.
03/24/89	1100	PATHFINDER alongside barge. All fast portside barge. Depart from berth 1 to berth 4.
03/24/89	1114	KAVIK, TROJAN and CHAMPION ready to go. Second tug crew - on way out. USCG wants all 3 tugs. KAVIK may take over barge. OVERSEAS WASHINGTON and ADMIRALTY BAY at standby.
03/24/89	1114	Shier: CHAMPION/TROJAN take Vikoma Sea-Pak and work leading edge of oil. Move due at 1330.
03/24/89	1114	Two helicopter buckets with pallets of dispersants to Kenai. Fire boom helitorch; burn against rock ledge.
03/24/89	1114	Dispersant moved from terminal warehouse to helipad. OUR DISPERSANT OUT AND READY. Class V and VII will stay on leading edge; afraid oil may hit Bligh and Busby Is. 15,000' seafoam here by 2400. 8,000' from Prudhoe Bay.
03/24/89	1114	Anchors put together, spool line, increase charter boats, haul out to ship.
03/24/89	1120	(1) Start staging boom - prelinked and ready to go. 50' of chain and line.
03/24/89	1120	(2) Release PATHFINDER. DIRECTION; Sarnacki relieve Baldrige. Change out: VINCE PEEDE standby 1600 will have food, etc.
03/24/89	1120	(3) KAVIK relieves PATHFINDER, 5 days groceries. OVERSEAS WASHINGTON and ADMIRALTY BAY on standby.

03/24/89	1120	(4) Barge homebase - KAVIK alongside. CHAMPION and TROJAN - load up and head out with largest pump available for 3/25 - set up BP equipment with boats - start working on.
03/24/89	1120	(5) Need helicopter 212, ERA and Security, need to rip cargo nets. OPTION: Need speed boat immediately and carry cargo. Wilson: getting speed boat, approx. 28'.
03/24/89	1120	(6) VINCE PEEDE set up for crew change: SBH at 1600 hr. Discuss arrangements to acquire additional dispersants.
03/24/89	1120	(7) Bring HELENKA B in and outfit her. Barges on way from Dutch Harbor. Start BETTY K up from Sea. Move ADMIRALTY BAY closer to scene approx. 1,500'; coordinate with USCG.
03/24/89	1120	(8) VINCE PEEDE Ch. 16. More equipment arriving tonight from all over Alyeska. Small boats: issue boom, assign area. Larger boats pick up oil and strip berths.
03/24/89	1120	(9) Make up tow bridle. Change out personnel in Administration. Westmark ready; 6 rooms available. 2 secretaries, typewriter and fax.
03/24/89	1120	(10) 2 secretaries, typewriter and fax machine around the clock. 28 anchors from Anchorage. Bladders, trash pumps and hoses all available.
03/24/89	1120	Hook up Alyeska skimmers for tow behind barge.
03/24/89	1123	USCG requests use of a helicopter to transport Governor to the spill site. Told that at the time, air support was needed at oil spill. Equipment will be arriving onsite.
03/24/89	1127	Nelson and Polasek arrived at Valdez Emergency Center.
03/24/89	1130	Tug HELENKA "B" enroute.

03/24/89	1137	PATHFINDER enroute to oil spill scene at Bligh Reef.
03/24/89	1200	STALWART proceeds to EXXON BATON ROUGE to pick up fenders.
03/24/89	1205	SEA FLYER arrives port side EXXON BATON ROUGE and starts off loading hoses and finishes filling Yokohamas with air.
03/24/89	1230	PATHFINDER abeam Middle Rock.
03/24/89	1250	357EH sent out with parts.
03/24/89	1310	SEA FLYER taking fenders to EXXON VALDEZ.
03/24/89	1315	Jerry Massman of Whittier offers two 60' LCM 6's, 17,000 gallon tankage. R. Brown calls to accept offer - lead time 9 hours from Whittier.
03/24/89	1318	STALWART runs to EXXON VALDEZ with fenders.
03/24/89	1337	Continuing discussion regarding bird rescue. Craig Rassinier calls L. Shier - update given.
03/24/89	1350	Tug KAVIK will replace the PATHFINDER.
03/24/89	1354	ITSWOOT in Whittier will also depart ASAP. Valdez spill site.
03/24/89	1415	Vessel is listing per update by McKay. Description given of oil spill.
03/24/89	1420	PATHFINDER arrives at spill vicinity, 2.5 miles north of Bligh Reef buoy. Proceeds south to spill edge.
03/24/89	1430	PATHFINDER arrives at spill site.
03/24/89	1438	McCall updates Shier.
03/24/89	1450	Distributing float suits to crew on boats; 12 total.
03/24/89	1454	PATHFINDER moves to 1/2 mile south of Bligh Reef buoy.
03/24/89	1456	S. Stevens confirmed time 1600 hours for

		arrival at terminal boat harbor.
03/24/89	1457	E. Kiml relays National Guard recon earth station. Take look at Reef Island. Reassured plenty of helicopters.
03/24/89	1459	Kosczarek on SEA FLYER at 1445. Second fender has been filled on the way to Valdez. First fender at Valdez is secured. EXXON BATON ROUGE alongside EXXON VALDEZ.
03/24/89	1500	Skimmer operations spill update: 1/2 mile leading edge near Bligh Reef. Boom being deployed; skimmer gear to work toward EXXON VALDEZ. Weather calm - northeast at 5 knots. Baldridge requested lighted buoys to place on edge of heavy oil spill.
03/24/89	1500	PATHFINDER tying sea packs to barge.
03/24/89	1515	Class V and VII cut loose from barge (begin skimming).
03/24/89	1520	Setting up bladders for sea skimmer.
03/24/89	1521	2 remaining sea packs - ready to go and checked out.
03/24/89	1524	L. Shier requested dispatch of the sea packs.
03/24/89	1530	Continuing oil spill clean up operation in vicinity of Bligh Reef buoy.
03/24/89	1540	Started HIAB and loading sea skimmer.
03/24/89	1545	Finish putting second fender alongside port side of EXXON VALDEZ.
03/24/89	1558	To Shier, Jerry Labarre has this equipment 3" trash pump. Oil water separator skid - oversize in width and length.
03/24/89	1605	Tractor and trailer PS12 coming down, will be here approx. 1 1/2 hrs with bladders.
03/24/89	1614	Shier, O'Donnell and Polasek leave for

		Westmark in town.
03/24/89	1647	Lightering operation on hold per R. Brown. Update from J. Runnels to L. Shier or C. O'Donnell on hold by USCG - awaiting word from Naval architect from Houston.
03/24/89	1650	Landing craft ITSWOOP estimated time of arrival in Valdez 2100 hours; will load with bladder and fittings at Fluor dock.
03/24/89	1652	Stroup from Kenai called for number to call when his crew of 40 people arrive; given the ERC number.
03/24/89	1658	CHAMPION leaves for spill with 2 seapacks.
03/24/89	1704	Tem more contractors were requested for tonight. Rod approved the request.
03/24/89	1709	Commander McCall arrived at the Emergency Center.
03/24/89	1715	Tug and two seapacks estimated time of arrival at spill 2200 hours.
03/24/89	1720	Commander McCall and C. Robinson leaving Emergency Center for training room for briefing. They will leave for a flyover.
03/24/89	1722	We have three contract boats at small boat harbor. Two of these boats will work tonight, assisting and deploying boom.
03/24/89	1745	Off loaded 80 barrels from Class VII into PATHFINDER slop tank.
03/24/89	1805	PATHFINDER assisting in oil spill clean up approximately 1 mile south of Bligh Reef buoy.
03/24/89	1812	Both hlicopters conducting dispersant tests.
03/24/89	1813	The first two DRA tanks for recovering oil being staged at Fluor dock.
03/24/89	1834	Frank Heffernan called to confirm the

		transportation arrangements are made to pick up 40 VECO people from Kenai arriving at Valdez airport at 0835 next day.
03/24/89	1843	Exxon has made arrangements with the BATTLE BORN to take 3 of their people out to the tanker.
03/24/89	1857	Helicopter says could see some separations in oil from dispersant test.
03/24/89	1910	All recovered oil containers full; requesting USCG permission to discharge recovered oil into center tanks of BR126-1.
03/24/89	1919	Preliminary response from USCG regarding off loading oil into the barge is "no."
03/24/89	1930	SEA FLYER proceeds with EXXON BATON ROUGE towards EXXON VALDEZ.
03/24/89	1947	Captain of JEFFERY POSS calling for John Baldridge on G556 via marine radio. Told him to contact PATHFINDER on Channel 10 or 16.
03/24/89	2009	Internal priority is to boom ship when we get clearance.
03/24/89	2030	Crew changeover. Gear up/turn over/ i.e. containment discussion, all vessels on standby Class VII, V, 2 graylings, 2 monarchs, 4 seapacks, barge, seaskimmer.
03/24/89	2032	USCG says: best use of boom is to run deflection boom along west side of Bligh Island and put skimmer at the end; no oil releases around the ship lately, some expected later after lightering commences; booming ship not recommended at this time.
03/24/89	2043	PATHFINDER receives instructions to deploy boom from Bligh Reef buoy to stern of EXXON VALDEZ.
03/24/89	2043	Emergency Center orders Baldridge to run curtain boom from the vicnity of stern of ship, angle line toward Bligh Reef buoy.

03/24/89	2043	Sorbents link together, run along west side of Bligh Island near shore. Barge has 800 ft. curtain boom and sorbent. Foss barge to arrive at approx. 2400.
03/24/89	2056	Marine Ops strip Berth 5, 1, 4 boom - ALBA II to take to site.
03/24/89	2100	USCG Pacific Strike Team and two each C-130's to arrive in Valdez the morning of 3/25. Equipment includes high speed barrier skimmer and boom will be loaded aboard cutter SEDGE and sent to sea.
03/24/89	2118	4 Alyeska people on the BATON ROUGE are spending the night on the tug.
03/24/89	2130	One monarch deploying connex of boom off barge: 1 grayling standby to deploy more boom: Seaview off bow for barge spotlighting deployment: 1 grayling shuttling people and supplies to tanker.
03/24/89	2144	Convair--leaving Kenai carrying 40 people from VECO work crew.
03/24/89	2200	Move barge and PATHFINDER toward Bligh Reef buoy before further deployment of boom.
03/24/89	2210	Need: pump 2 capability; Recommend storage capability to be towed behind LCM; 16,000 gallon plus recommended.
03/24/89	2210	BATTLEBORN alongside PATHFINDER waiting to shuttle 4 Exxon men off tanker to Valdez. NORTHERN GALE alongside also standing by.
03/24/89	2215	(1) PATHFINDER towing barge to Bligh Reef buoy. Class V and VII, sea packs and sea skimmer also in tow.
03/24/89	2215	(2) GRAYLINGS, MONARCHS, SEAVIEW and NORTHERN GALE in transit also.
03/24/89	2225	ALBA II enroute with containment boom from Berths 4, 5, and 1.
03/24/89	2230	Barge stationary. Begin deployment of second segment of boom by yellow grayling (Glacier Island spotlight

		detail) yellow monark and yellow grayling connecting boom segmetns from Exxon Valdez to buoy.
03/24/89	2230	PATHFINDER deploying boom to ship.
03/24/89	2245	Barge crew setting up anchors and line for anchoring boom.
03/24/89	2300	Black monarch deploying third connex of boom off barge. Glacier Island on spotlight detail.
03/24/89	2310	Black grayling deploying boom off portside of barge from inside connex.
03/24/89	2320	SEAVIEW off loaded last segment of boom (5th) from top of connex and hooked up with others.
03/24/89	2345	Connecting 5 lengths of boom, attaching lighted buoys, stretching to buoy at Bligh Reef.
03/24/89	2400	JEFFREY FOSS and 30,000 bbl barge arrive on scene.
03/25/89	0015	PATTY ANNE staying at Foss barge helping with boom around EXXON VALDEZ.

TESTIMONY OF

MICHELLE HAHN O'LEARY

MY NAME IS MICHELLE HAHN O'LEARY. I AM HERE TODAY REPRESENTING THE CORDOVA DISTRICT FISHERMEN UNITED (CDFU). I CAME TO CORDOVA, ALASKA, IN THE FIRST DAYS OF APRIL IN 1974, BECAUSE I'D ALWAYS BEEN DRAWN TO ALASKA'S GRANDURE AND WANTED TO EXPERIENCE IT FIRST HAND. I FELL IN LOVE WITH ITS BEAUTIFUL RUGGED NORTHERN MARINE ENVIRONMENT, WHICH IS SURROUNDED BY STEEP MOUNTAINS FROSTED WITH GLACIERS AND ICE FIELDS. I FOUND THE PEOPLE LIVING IN HARMONY WITH THE LAND AND SEA, INDIVIDUALS UNITED WITH A COMMON LOVE FOR THEIR LIFESTYLES AND INDEPENDENCE. I NEVER LEFT, AND INSTEAD MADE CORDOVA MY HOME.

I IMMEDIATELY BEGAN COMMERCIAL FISHING IN PRINCE WILLIAM SOUND. I PARTICIPATED IN THE 1974 HERRING ROE-ON-KELP HARVEST WHICH USUALLY TAKES PLACE LESS THAN 2 MILES FROM THE *EXXON VALDEZ'S* DEVASTATING SPILL. I WAS HOOKED AND HAVE BEEN COMMERCIAL FISHING FOR 15 YEARS NOW.

I MET MY HUSBAND MICHAEL O'LEARY IN CORDOVA. HE WAS BORN AND RAISED IN ALASKA, AND HAD MOVED TO CORDOVA IN 1971. WE EACH HAVE A LIMITED ENTRY POUND HERRING ROE-ON-KELP PERMIT, A FISHERY THAT HAS BEEN CLOSED BECAUSE OF THE OIL SPILL. WE ALSO CREW ON HERRING SAC ROE SEINERS HERE IN PRINCE WILLIAM SOUND, AGAIN CLOSED BY THE OIL SPILL. WE FISHED HALIBUT FOR 3 YEARS IN THE SOUND. MY HUSBAND HAS CREWED FOR SALMON SEINING AND GILLNETTING HERE IN THE SOUND; I HAVE TENDERED FOR THE SALMON GILLNET AND SEINE FISHERIES; AND WE BOTH HAVE FISHED THE WILD HARVEST OF HERRING ROE-ON-

KELP MANY YEARS. TOGETHER WE HAVE SEINED SAC ROE HERRING FOR 3 YEARS IN BRISTOL BAY AND WE DRIFTNET FOR SALMON IN THT BAY AS WELL, AN AREA THE FISHERMEN ARE STILL ASKING CONGRESS TO PUT OFF LIMITS TO OFFSHORE OIL DRILLING TO PREVENT JUST THIS TYPE OF TRAGEDY AND DISASTER.

WE ARE MEMBERS OF CDFU, I AM ON THE BOARD OF DIRECTORS, SERVING AS CHAIRMAN OF THE POUND HERRING-ROE ON-KELP DIVISION. WE ALSO ARE MEMBERS OF THE UNITED FISHERMEN OF ALASKA AND THE BRISTOL BAY DRIFTNETTERS ASSOCIATION.

MY HUSBAND MIKE AND I BUILT AND OWN A HOUSE THAT SITS ON A PENINSULA JUTTING INTO ORCA INLET NEAR CORDOVA. THERE IS A RICH SALMON SPAWNING STREAM, TEAMING WITH LIFE BORDERING THE BACK OF THE PROPERTY, AND WE CO-HABITAT DAILY WITH LAND OTTERS, SEA OTTERS, SEALS, EAGLES, CANADA GEESE, AND MANY SPECIES OF WATERFOWL AND SHORE BIRDS THAT FEED AND HAUL OUT ON THE BEACH IN FRONT OF THE HOUSE. THESE ARE OUR COMPANIONS AND FRIENDS. THEIR LIVES ARE IN DANGER, AND WE FEEL HELPLESS, FRUSTRATED, AND ANGUISHED AT OUR INABILITY TO HELP THEM. I THINK I CAN SAY MOST OF THE RESIDENTS OF PRINCE WILLIAM SOUND FEEL THIS WAY.

CORDOVA IS A TOWN THAT IS TOTALLY DEPENDENT ON THE FISHERIES OF PRINCE WILLIAM SOUND. OUR LIFESTYLE IS RULED BY THE TIDES AND THE FISH THAT INHABIT PRINCE WILLIAM SOUND INSTEAD OF BY A CLOCK. ALMOST ALL THE BUSINESSES IN CORDOVA DIRECTLY SUPPORT THE FISHING FLEET AND THEIR NEEDS. WE ARE GOOD AT WHAT WE DO. IN 1988 CORDOVA WAS THE 9TH LARGEST FISHING PORT FOR EX-VESSEL (GROSS) VALUE IN THE UNITED STATES, AND 4TH LARGEST IN ALASKA. NOW ALL THAT

IS CORDOVA HAS BEEN TOTALLY DISRUPTED, AND FOULED BY THE *EXXON VALDEZ* OIL SPILL AND ALYESKA'S FAILURE TO DO ITS JOB AS WE WERE LED TO BELIEVE IT WOULD.

IN THE LATE 60'S AND EARLY 70'S CDFU FOUGHT LONG AND HARD TO TRY TO PROTECT PRINCE WILLIAM SOUND AND THEIR WAY OF LIFE FROM THE TRANSPORTATION OF OIL THROUGH THE WATERS OF PRINCE WILLIAM SOUND AND THE GULF OF ALASKA. WE DID THIS BECAUSE WE FELT ADEQUATE ENVIRONMENTAL STUDIES HAD NOT BEEN DONE TO ADDRESS THE IMPACT OF A SPILL OR POLLUTANTS ON THE MARINE ECOLOGY, AND HENCE UPON ON OUR LIVES AND LIVELIHOODS. CDFU ALSO FELT (AND HAD THE DATA TO SUPPORT OUR BELIEFS) THAT THE OIL INDUSTRY WAS INCAPABLE OF RESPONDING QUICKLY TO A SPILL, AND THAT THEIR CLEAN UP EFFORTS IN THESE TREACHEROUS WATERS WITH FEROCIOUS WEATHER PATTERNS WOULD BE INEFFICENT AT BEST.

THREE CDFU MEMBERS, KNUTE JOHNSON, ROSS MULLINS, AND DELL GOERES, ALONG WITH ONE REPRESENTIVE FROM THE BUSINESS COMMUNITY, GEORGE BALLUM, BROUGHT THESE CONCERNS HERE TO WASHINGTON, DC, IN 1971 IN HOPES OF HAVING THEM ADDRESSED. LITTLE CAME OUT OF THESE MEETINGS ACCEPT SEEMING LAME ASSURANCES BY DIFFERENT GOVERNMENTAL AGENCIES THAT THE BEST AVAILABLE TECHNOLOGY WOULD BE UTILIZED TO SAFE GUARD THE ENVIRONMENT.

IN HINDSIGHT, IT APPEARS A QUICK RESPONSE TO AN OIL SPILL AND THE OIL SPILL CLEAN UP TECHNOLOGY EXIST ONLY ON PAPER STORED IN OFFICES, WHILE A HUGE AND LETHAL BLOT OF OIL ROAMS UNCONTROLLED ACROSS PRINCE WILLIAM SOUND AND THE GULF OF ALASKA. IT SEEMS ONLY THE ENVIRONMENTALLY CONSCIOUS PEOPLE OF CORDOVA, AND A FEW FRIENDS, COULD SEE THE EMPEROR WAS WEARING NO CLOTHES.

ON MARCH 24TH AT 6:20 A.M. MY HUSBAND AND I WERE AWAKENED BY A PHONE CALL FROM A FELLOW FISHERMAN IN SEATTLE, WASHINGTON, TELLING US OF THE OIL SPILL. WE IMMEDIATELY CALLED THE STATE TROOPERS AND JACK LAMB, ACTING PRESIDENT OF CDFU, AND SUGGESTED WE COORDINATE WITH THE FISHERMEN OF VALDEZ, WHITTIER, SEWARD, HOMER, AND THE NATIVE VILLAGES OF TATITLEK AND CHENEGA TO HELP ALYESKA BOOM OFF THE TANKER OR ASSIST IN ANY WAY POSSIBLE WITH OUR BOATS, EQUIPMENT, AND PROFESSIONAL LOCAL KNOWLEDGE OF THE CURRENTS, TIDES, AND WEATHER PATTERNS OF PRINCE WILLIAM SOUND.

JACK LAMB CALLED THE COAST GUARD, ALYESKA, AND OTHER AGENCIES IN VALDEZ TO LET THEM KNOW WE WERE AVAILABLE IMMEDIATELY WITH 20 BOATS TO DEPLOY BOOM. NO RESPONSE. BY MIDAFTERNOON ON THE DAY OF THE SPILL OVER 50 BOATS FROM CORDOVA AND TATITLEK WERE READY TO GO. WE STILL NEVER RECEIVED A PHONE CALL BACK DESPITE MANY MORE ATTEMPTS TO CONTACT ALYESKA. MANY OF THE FISHERMEN FLEW THE SPILL FROM 7:00 A.M. ON THROUGHOUT THE REST OF DAY. WITH EACH FLIGHT REPORT CDFU BECAME MORE APPALLED AS NO EFFORTS WERE BEING MADE TO BOOM OFF THE TANKER. WE ASSUMED ALYESKA HAD A LARGE STOCK PILE OF BOOM MATERIAL ON HAND READY TO BE DEPLOYED, WHEN IN FACT THEY HAD ONLY 7,000 FEET OF LOW QUALITY BOOM, FIT ONLY FOR CALM WATER USE. YET THEY COULDNOT EVEN ISSUE A COMMAND TO HAVE THAT DEPLOYED.

AT ONE OF THE EARLY EXXON PRESS CONFERENCES IT WAS ANNOUNCED THAT BOOM WAS IN PLACE AROUND THE TANKER, WHEN IN FACT IT WAS NOT. THIS SAME SCENARIO WAS PLAYED MANY TIMES WITH DIFFERENT VERSIONS OF THE THEME. RALPH LOHSE AND HIS THREE BROTHERS-IN- LAW, ALL FROM CORDOVA, WERE WORKING THEIR BOATS IN A VOLUNTEER EFFORT AT EXXON'S REQUEST, TO HOLD BOOM TOGETHER

AROUND THE TANKER. EVEN AFTER THE LOW QUALITY BOOM WAS PUT AROUND THE TANKER IT CONTINUALLY BROKE, FRACTURED, AND PULLED APART AS OIL GUSHED UNDER IT IN THE UNUSUALLY CALM WEATHER. RALPH MADE REPEATED ATTEMPTS TO CONTACT EXXON AND INFORM THEM OF THE SITUATION AND THE NEED FOR REAL BOOM CAPABLE OF CONTAINING AT LEAST SOME OF THE SPILL. THEY WERE IGNORED TOTALLY: THEY FINALLY GAVE UP RETURNING TO CORDOVA WHEN THE ORIGINAL BOOM MATERIAL WAS SO BROKEN IT COULD NO LONGER CONTAIN OIL, AND NO NEW BOOM MATERIAL WAS FORTHCOMING. ON THEIR WAY BACK TO CORDOVA THEY AGAIN HEARD EXXON SAY AT THE PRESS CONFERENCE THAT THE TANKER WAS BOOMED OFF, WHEN IN REALITY THE BOOM'S ONLY FUNCTION WAS FOR SHOW AND TELL.

FISHERMEN, BY THE NATURE OF THEIR BUSINESS, ARE INNOVATORS BECAUSE THEY MUST CREATIVELY SOLVE PROBLEMS WHEN THEY FACE A LACK OF PROPER TOOLS AND MATERIALS. THEY ARE OFTEN CALLED UPON TO DO THIS IN TIMES OF EMERGENCY. IT WAS OBVIOUS THAT THE FIVE HATCHERIES IN PRINCE WILLIAM SOUND BE IMMEDIATELY SECURED FROM THE APPROACHING OIL. FOUR OF THESE HATCHERIES ARE THE LARGEST SALMON HATCHERIES IN THE WORLD. WE QUICKLY REALIZED IF ANY QUALITY BOOM MATERIAL WAS GOING TO BE FOUND WE BETTER BE DOING IT OURSELVES. CDFU AND PWSAC (PRINCE WILLIAM SOUND AQUACULTURE CORPERATION) IMMEDIATELY WENT ON A WORLDWIDE SEARCH FOR BOOM. MANY TIMES FOREIGN AND DOMESTIC COMPANIES CALLED US TO SAY EXXON HAD SAID THEY DID NOT NEED ANY MORE BOOM AT THIS TIME, AND COULD WE LINE UP SHIPING AND AIRPLANES SO THAT BOOM COULD BE ON HAND WHEN IT WAS NEEDED. IT WAS THROUGH THE FISHERMEN'S, PWSAC'S, AND THE STATE OF ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION'S PERSISTENCE THAT BOOM MATERIAL BEGAN TO ARRIVE TO SECURE THE HATCHERIES.

FISHERMEN WORKING WITH THE DEPARTMENT OF FISH AND GAME WERE INSTRUMENTAL IN MAPPING OUT THE KEY SALMON SPAWNING STREAMS AND HERRING SPAWNING BEACHES, ALONG WITH IMPORTANT BIRD ROOKERIES AND MARINE MAMMEL HAULOUTS IN THE SOUND. THIS INFORMATION WAS QUICKLY PRESENTED TO EXXON AND ACCEPTED BY THEM AS IMPORTANT POINTS OF DEFENSE. UNFORTUNATLELY TO THIS DATE, EXXON HAS NOT BEEN ABLE TO COME UP WITH ENOUGH BOOM MATERIAL TO EXECUTE ANY OF THIS PLAN, EXCEPT FOR THE FAIR WEATHER DEFENSE OF THE ARMIN F. KOERNIG HATCHERY IN SAWMILL BAY.

IT SHOULD ALSO BE NOTED THAT THE DEFENSIVE PLAN FOR THE PROTECTION OF UNCONTAMINATED BEACHES AND STREAMS STATES THAT BAYS FULL OF OIL SHOULD BE BOOMED OFF SO THAT THE OIL CAN BE CONTROLLED UNTIL IT CAN BE PICKED UP BY SKIMMERS. THIS HAS NOT BEEN ACCOMPLISHED, OR EVEN ATTEMPTED BY EXXON. WHEN ASKED "WHY NOT?" EXXON'S REPLY IS ALWAYS "WE'VE GOT ALL THE BOOM COMING THAT THERE IS AVAILABLE." THAT IS NOT THE CASE. THE FACT IS THAT MUCH OF THE BOOM THAT EXXON HAS ORDERED IS COMING BECAUSE FISHERMEN FOUND IT AND TOLD EXXON HOW AND WHERE TO GET IT. THERE IS OTHER QUALITY BOOM AVAILABLE, AND IF THAT RUNS OUT EXXON SHOULD CONTRACT FOR THE MANUFACTURE OF ADDITIIONAL HIGH SEAS, OCEAN STANDARD BOOM, NOT THE MILLPOND GRADE BOOM THAT YOU SEE BEING USED SPARINGLY IN THE CLEANUP.

NEW BEACHES ARE BEING CONTAMINATED AT AN ALARMING RATE BY WEATHERED THREE WEEK OLD CRUDE OIL AND STILL EXXON FAILS TO ADDRESS THIS ASPECT OF THE ON GOING DISASTER. WE ARE ALARMED BY PRESENT REPORTS FROM SPOTTER PILOTS AND FISHERMEN ON THE SCENE THAT FRESH CRUDE OIL IS EVEN NOW LEAKING FROM THE

EXTENSIVELY DAMAGED TANKER, WHICH STILL CONTAINS OVER 714,000 GALLIONS OF CRUDE OIL.

OTHER MYTHS PREVAIL. TAKE THE MATTER OF SKIMMER DEPLOYMENT. EXXON CONTINUALLY REFERS TO THE 39 TO 43 SKIMMERS IT HAS WORKING IN THE SOUND. AT THE BEGINNING OF THE SPILL, EXXON DID NOT EFFECTIVELY DEPLOY THE FEW SKIMMERS THEY HAD. WHEN THEY OBTAINED THE NAVY BELT SKIMMERS THAT CAN OPERATE MORE EFFECTIVELY IN ASSOCIATION WITH THICKENED, AGED OIL, THEY WERE UNABLE TO OFFLOAD THEM EFFICIENTLY. AT BEST, ONLY THREE OR FOUR SKIMMERS CAN OPERATE ON ANY GIVEN DAY, BECAUSE EXXON HAS NOT BOTHERED TO OBTAIN SUFFICIENT OFFLOADING EQUIPMENT. THE NAVY SKIMMERS THAT ARE IN OPERATION ARE IN USE LESS THAN EIGHT HOURS A DAY, WHILE THE FISHERMEN , WHO TOW BOOMS FOR THE SKIMMERS, ARE WILLING TO TAKE ADVANTAGE OF THE SIXTEEN HOURS OF DAYLIGHT AVAILABLE FOR CLEANUP IN THE SOUND.

YOU MAY HAVE HEARD THAT THE FISHERMEN ARE MAKING A LOT OF MONEY AS A RESULT OF THE CLEANUP EFFORT. EXXON'S SPOKESMAN REFERED TO THE FISHING BOATS AS "EXXON'S NAVY." WHAT AN INSULT! THE FACT OF THE MATTER IS FISHERMEN WENT OUT VOLUNTARILY IMMEDIATELY AFTER HEARING OF THE SPILL TO PROTECT THE SOUND. FISHERMEN STAYED AT WORK IN THE CLEANUP WITHOUT ANY INTENTION OF PAYMENT BY EXXON. EXXON LATER REQUIRED CONTRACTS OF MOST OF THE FISHERMEN ENGAGED IN THE CLEANUP BECAUSE EXXON WAS CONCERNED ABOUT THEIR FURTHER LIABILITIES. WE WENT OUT TO HELP DEFEND THE SOUND AND ITS CREATURES, AND TO PROTECT THE HATCHERIES AND OUR LIFESTYLE. WE HAVE NO INTEREST IN WEARING EXXON'S HAT. WE WOULD PREFER OUR FORMER FISHING JOBS TO THOSE OF OIL CLEANUP. UNFORTUNATELY THAT'S ALL THAT'S LEFT FOR US NOW.

FURTHERMORE, EXXON SAYS THEY ARE WILLING TO SATISFY ALL REASONABLE FISHERY RELATED CLAIMS. EXXON'S SPOKESMAN, DON CORNETT, SAID $10,000,000 WAS BEING MADE AVAILABLE IMMEDIATELY TO SATISFY THESE CLAIMS. THE FACT OF THE MATTER IS THAT THIS MONEY WAS NOT AVAILABLE BECAUSE EXXON COULD NOT DEVELOP A CLAIMS PROCESS THAT COULD ADEQUATELY HANDLE THE SITUATION. NOW EXXON SAYS THAT THEY WILL NOT SATISFY WHAT THEY CALL "SECONDARY" CLAIMS PRESENTED BY THE BUSINESS COMMUNITY OF CORDOVA. THE ENTIRE ECONOMY OF THE COMMUNITY IS PRIMARILY AND DIRECTLY RELATED TO FISHING. HOW COULD THESE BE SECONDARY CLAIMS? HOW WILL EXXON ADDRESS THE CLAIMS OF THE NATIVE VILLAGES WHOSE LARGELY SUBSISTENCE EXISTENCE IS DEPENDENT ON A CLEAN AND HEALTHY MARINE ENVIRONMENT?

AT THIS TIME IN A NORMAL FISHING SEASON, THERE WOULD BE OVER 1,500 CREW MEMBERS, CANNERY WORKERS, TENDERMEN, AND FLOATING PROCESSORS WHO WOULD SPEND MONEY IN CORDOVA GETTING READY FOR THE HERRING TO ARRIVE. SINCE ALL THE HERRING FISHERIES HAVE BEEN CLOSED ALONG WITH BLACKCOD AND SHRIMP FISHERIES, THE COMMUNITY HAS NOT ONLY LOST THIS REVENUE, BUT ALSO THE TAX THEY WOULD HAVE RECEIVED FROM THE FISHERY IN THE FORM OF RAW FISH SALES. THE STATE ALSO GETS A PORTION OF THE RAW FISH TAX. ADDITIONAL REVENUE IS EARMARKED FOR THE ALASKA SEAFOOD MARKETING INSTITUTE. YOU CAN UNDERSTAND HOW THIS CAN SNOWBALL. NOW OTHER COMMUNITIES IN THE STATE ARE FACING THE SAME BATTLE WITH EXXON, AS THE KODIAK AND LOWER COOK INLET HERRING AND BLACK COD FISHERIES WERE CLOSED THIS WEEK.

THE ALYESKA PIPELINE COMPANY HAS REAPED OVER 12 BILLION DOLLARS IN PROFITS FROM ALASKAN CRUDE OIL AT SOMETHING NEAR 2.5 MILLION DOLLARS A DAY. IT HAS HAD 16 YEARS TO PREPARE FOR AN OIL SPILL IN PRINCE WILLIAM SOUND. IT SEEMS AS THOUGH THE OIL INDUSTY SHOULD HAVE SPENT SOME OF THOSE PROFITS ON RESEARCHING THE LATEST TECHNOLOGICAL ADVANCES AND EQUIPMENT, WITH FIELD TESTING IN ALL KINDS OF WEATHER, AND COMPILING THAT INFORMATION WITH THE LOCATION OF MATERIALS AROUND THE WORLD ON A CENTRAL COMPUTER SYSTEM THAT WOULD BE AVAILABLE FOR THE ENTIRE WORLD'S INPUT AND USE.

THE OIL INDUSTRY'S LACK OF PROPER EQUIPMENT, ABSENCE OF EFFICIENT OIL SPILL RESPONSE TEAMS, AND FAILURE TO CLEAN UP ITS MESS IS DEPLORABLE AND INEXCUSABLE. FISHERMEN SHOULD NOT HAVE TO DO ALYESKA'S JOB AND LOCATE BOOM MATERIALS FOR THEM, ARRANGE FOR TRANSPORTATION OF OIL CLEAN UP MATERIALS, DESIGN SUPERSUCKER SETUPS TO REMOVE OIL FROM THEIR UNRELIABLE SKIMMERS, AND IN ESSENCE BE THEIR OIL SPILL RESPONSE TEAM. IT IS TIME FOR THE GOVERNMENT TO TAKE RESPONSIBILITY AND FORCE THE OIL INDUSTRY TO ACCOUNT FOR ITS ACTIONS AND CORRECT THEM. IT IS TIME THAT THIS PLANET IS NOT JUST USED AND ABUSED, BUT PROTECTED AND LOVED.

1989 IS THE 100TH ANNIVERSARY OF COMMERCIAL FISHING IN PRINCE WILLIAM SOUND. THE FIRST CANNERY WAS BUILT IN CORDOVA IN 1889. ALTHOUGH THE NATIVES HAD BEEN HARVESTING SALMON FOR MANY YEARS IT WAS THE COMMERCIAL BEGINNING OF 99 YEARS OF BOUNTY PROVIDED BY THE BEAUTIFUL, RICH AND RENEWABLE RESOURCES OF THE SOUND. WHAT A SAD, DESTRUCTIVE, AND PATHETIC SITUATION FISHERMEN AND ALL THE MEMBERS OF THE SOUND FACE IN THIS HISTORIC 100TH YEAR.

THIS WAS FORECAST TO BE AN EXCEPTIONAL YEAR FOR COMMERCIAL FISH HARVESTS, BASED ON THE ALASKA DEPARTMENT OF FISH AND GAME'S PROJECTION OF HARVEST LEVELS. INSTEAD OF CELEBRATING THIS HISTORIC 100TH YEAR, WE FIND OURSELVES CRYING AS WE HARVEST OIL COATED DEAD SEA OTTERS AND DECK LOAD OUR BOATS WITH BIRDS DOOMED BECAUSE THEY INGESTED TOXIC OIL AS THEY ATTEMPTED TO FREE THEIR WINGS FROM THE BLACK GOO. THERE ARE FEW THINGS IN THIS WORLD THAT WILL TEAR YOUR HEART OUT QUICKER THAN THE PAINED SCREAMS OF SEA OTTERS AS THEY TRY TO GET THE OIL OUT OF THEIR EYES. THE PEOPLE OUT ON THE OILED BEACHES CALL THIS THE "DEAD ZONE" BECAUSE NOT EVEN A SNAIL IS LEFT ALIVE AFTER UP TO FIVE INCHES OF LETHAL OIL HAS COATED THE BEACHES. WHAT A POOR TRADE WE THE AMERICAN PEOPLE HAVE MADE, BY EXCHANGING A RENEWABLE RESOURSE BASED ON SOUND MANAGEMENT POLICIES MADE WITH THE UPMOST CORNCERN FOR THE ENVIRONMENT FOR A NON-RENEWABLE RESOURSE BASED SOLELY ON PROFIT MARGINS.

THE LIVES OF THE RESIDENTS OF PRINCE WILLIAM SOUND, MAN, OTHER LAND AND SEA MAMMALS, FISH, BIRDS, AND SHELLFISH HAVE BEEN VIOLATED, DISRUPTED, CONTAMINATED, AND EVEN DESTROYED BY THE WRECK OF THE *EXXON VALDEZ*, AND THE DISMAL FAILURE OF THE OIL INDUSTRY'S RESPONSE. WE ASK CONGRESS TO COME TO ALASKA AND CORDOVA TO HOLD FIELD HEARINGS, SO THAT THOSE MOST AFFECTED BY THIS DISASTER CAN TELL YOU WHAT HAS HAPPENED HERE, AND HOW WE TRIED TO DEFEND OURSELVES AND ALL WE LOVE, AGAINST A VERY UNCONTROLABLE FLOATING BLACK DEATH.

TESTIMONY OF

FREDERICKA (RIKI) OTT

MY NAME IS RIKI OTT. I AM A FISHERWOMAN FROM PRINCE WILLIAM SOUND, ALASKA. I OWN A SALMON DRIFT GILLNET PERMIT AND HAVE FISHED PRINCE WILLIAM SOUND FOR FOUR YEARS. I HAVE ALSO LONGLINED FOR HALIBUT COMMERCIALLY AND FOR SABLEFISH AS PART OF A KILLER WHALE RESEARCH PROJECT IN THE SOUTHWEST DISTRICT OF PRINCE WILLIAM SOUND -- THE PART HARDEST HIT BY THE EXXON VALDEZ OIL SPILL ON GOOD FRIDAY.

I HAVE A SIX-PACK CAPTAIN'S LICENSE AND HAVE OPERATED MY VESSEL AS A CHARTER BOAT IN THE SOUTHWEST DISTRICT AND ALL OVER PRINCE WILLIAM SOUND. BUT MY CONCERN FOR AND LOVE OF THE SOUND GOES MUCH DEEPER THAN COMMERCIAL INTERESTS: I HAVE KAYAKED IN MANY OF ITS FJORDS; SPORT FISHED IN MANY OF ITS BAYS AND COVES; CAMPED ON MANY OF ITS BEACHES; PICKED BERRIES, HIKED, AND HUNTED IN MANY OF ITS HILLS.

AS A RESIDENT OF CORDOVA AND CONCERNED FISHERWOMAN, I AM CURRENTLY SERVING ON THE BOARD OF DIRECTORS OF THE PRINCE WILLIAM SOUND CONSERVATION ALLIANCE, THE COPPER RIVER FISHERMEN'S COOPERATIVE, THE CORDOVA DISTRICT FISHERMEN UNITED (CDFU), AND THE UNITED FISHERMEN OF ALASKA. I AM SPEAKING TODAY ON BEHALF OF THE UNITED FISHERMEN OF ALASKA, AS CHAIRMAN OF THE HABITAT COMMITTEE, AND ON BEHALF OF CDFU.

MY TRAINING IS IN MARINE BIOLOGY AND FISHERIES: I HAVE A MASTERS IN OIL POLLUTION (UNIVERSITY OF SOUTH CAROLINA, 1980) AND A DOCTORATE IN SEDIMENT

POLLUTION (UNIVERSITY OF WASHINGTON, 1986). BECAUSE OF MY BACKGROUND, BOB BLAKE AND THE OTHER DIRECTORS OF THE BOARD OF CDFU GAVE ME THE ALYESKA CASE, WHICH I HAVE BEEN WORKING ON FOR ONE AND ONE HALF YEARS.

I HAVE LEARNED THAT THE OIL INDUSTRY IN ALASKA IS AN ICE BERG THAT THE STATE OF ALASKA, THE ENVIRONMENTAL PROTECTION AGENCY (EPA), CONGRESS, AND THE ADMINISTRATION HAVE BEEN DODGING SINCE 1973 -- WHEN PRESIDENT NIXON SIGNED THE TRANS-ALASKA PIPELINE SYSTEM (TAPS) AUTHORIZATION ACT TO OVERTURN THE SUCCESSFUL LAWSUIT BY THE FISHERMEN AND THE ENVIRONMENTALISTS.

CDFU BROUGHT THEIR SUIT TO BLOCK THE MARINE LEG OF THE TAPS AND CONSTRUCTION OF THE VALDEZ TERMINAL BECAUSE OF THEIR CONCERNS ABOUT RESOURCE IMPACTS. FOR EXAMPLE, MANY OF THE PINK AND CHUM SALMON SPAWN ON INTERTIDAL BEACHES AND WOULD, THEREFORE, BE PARTICULARLY VULNERABLE TO AN OIL SPILL. THE FISHERMEN KNEW THAT "EXCEPTIONALLY STRONG SAFEGUARDS WOULD BE NECESSARY TO PROTECT THE TRADITIONAL AND HISTORIC RESOURCES AND USER GROUPS FROM (SHORT AND LONG TERM EFFECTS OF OIL POLLUTION) . . . SUGGESTED SAFEGUARDS INCLUDED STRONG REGULATIONS, STRONG ACTIVE ENFORCEMENT, AND STIFF PENALTIES FOR VIOLATORS" (CDFU LETTERS TO GOV. MILLER, 1969 AND 1970.)

CONGRESS OVERRODE CDFU'S LAWSUIT IN 1973, BUT NOT THE FISHERMEN'S CONCERNS ABOUT WATER QUALITY. CONGRESS ACKNOWLEDGED THESE CONCERNS AND STIPULATED IN THE TAPS LEGISLATION THAT THERE WOULD BE A CONTINGENCY PLAN AND A WASTE WATER TREATMENT SYSTEM AT THE TERMINAL AND THAT THE WASTE WATER TREATMENT SYSTEM WOULD BE REVIEWED AND UPGRADED EVERY FIVE YEARS TO

ENSURE THAT THE BEST AVAILABLE TECHNOLOGY WAS ALWAYS BEING UTILIZED (SECTION 23: B & C).

THE CONTINGENCY PLAN (1987, 1-3) STATES THAT "**ALYESKA** WILL DIRECT CLEANUP OPERATIONS OF SPILLS RESULTING FROM: TAPS OPERATIONS; THE MARINE TERMINAL AT VALDEZ; AND OPERATION, INVOLVING TANKERS CARRYING . . . (TAPS OIL) OCCURRING AT THE VALDEZ TERMINAL, IN PORT VALDEZ, VALDEZ ARM, OR PRINCE WILLIAM SOUND . . . CLEANUP OPERATIONS WILL BE CONDUCTED BY ALYESKA . . . IN SUCH A MANNER AS TO NOT REQUIRE ASSUMPTION OF CONTROL OF SUCH CLEANUP OPERATIONS BY FEDERAL OR STATE OFFICIALS . . ."

SO WHAT HAPPENED?

IN THE NEXT SEVERAL MONTHS, AND POSSIBLY YEARS, OF HEARINGS RESULTING FROM THE *EXXON VALDEZ* OIL SPILL, CONGRESS WILL HEAR ONE KEY WORD REPEATED A LOT: CUTBACKS. NOT ALL THE CUTBACKS WERE AUTHORIZED. FOR EXAMPLE, THERE WERE:

- CUTBACKS DURING INITIAL CONSTRUCTION OF THE VALDEZ TERMINAL;
- CUTBACKS ON COMPLETION OF TERMINAL CONSTRUCTION;
- CUTBACKS IN THE ENVIRONMENTAL POLLUTION CONTROL SYSTEMS AT ALYESKA;
- CUTBACKS IN THE CONTINGENCY PLAN;
- CUTBACKS IN THE ENVIRONMENTAL PROTECTION AGENCY'S BUDGET; AND
- CUTBACKS IN THE COAST GUARD'S BUDGET.

WHAT BEARING DO ALL THESE CUTBACKS HAVE ON THE OIL SPILL? THE FIRST HINT OF TROUBLE CAME IN 1980 WHEN THE FULLY LOADED TANKER *PRINCE WILLIAM SOUND* LOST POWER AND CAME WITHIN 30 MINUTES OF COLLIDING WITH AN ISLAND IN PRINCE

WILLIAM SOUND; THEN AGAIN IN 1985 WHEN CDFU AND CHARLES HAMEL & ASSOCIATES THREATENED TO FILE SUIT AGAINST ALYESKA OVER MISMANAGEMENT OF THE BALLAST WATER TREATMENT PLANT AND OPERATIONS WITH RESULTING VIOLATIONS OF THE ENVIRONMENTAL PERMITS; AND AGAIN IN EARLY 1989 WHEN OIL WAS SPILLED DURING TWO SEPARATE INCIDENTS DURING ONLOADING (IN ONE SPILL OF 55 BARRELS TOTAL, OVER 20 BARRELS WERE LOST DESPITE THE FACT THAT THE SPILL OCCURRED RIGHT AT THE TERMINAL).

IN ESSENCE, OVER THE PAST 12 YEARS IT IS APPARENT THAT THE OIL INDUSTRY HAS SIMPLY NOT COMMITTED ITS RESOURCES TO PROTECTING OUR RESOURCES AND ENVIRONMENT; AND TO CONTAINMENT AND MECHANICAL CLEANUP -- THE PREFERRED OPTION FOR THE FISHING INDUSTRY.

IN HER TESTIMONY, MS. O'LEARY VIVIDLY DESCRIBED HOW OVER THE FIRST THREE DAYS OF THE SPILL, WITH WEATHER CONDITIONS PERFECT FOR MECHANICAL CLEANUP, THE OIL SAT IN THE MIDDLE OF PRINCE WILLIAM SOUND AND STRETCHED, AMEBOA-LIKE, BACK AND FORTH WITH THE TIDES. ALYESKA DEPLOYED SKIMMERS THAT SCOOPED UP 30 AND 60 BARRELS OF OIL BEFORE THEY NEEDED TO UNLOAD; SKIMMERS WITH A CAPACITY OF 10,000 BARRELS AN HOUR SAT IDLE IN NORWAY. ALYESKA DEPLOYED BOOMS BEST SUITED FOR USE IN CALM PROTECTED WATERS; OCEAN HIGH SEAS BARRIER BOOM SAT STOCKPILED IN CITIES THROUGHOUT THE COUNTRY.

INSTEAD OF ATTEMPTING TO OBTAIN THE BETTER QUALITY EQUIPMENT, THE OIL INDUSTRY MADE A STRONG PUSH FOR DISPERSANT APPLICATION -- THE PREFERRED OPTION FOR THE OIL INDUSTRY. OUT OF SIGHT, OUT OF MIND. AS EARLY AS MID-AFTERNOON ON GOOD FRIDAY, DISPERSANTS WERE ARRIVING IN VALDEZ BY THE

PLANELOAD. BY THE TIME THE OIL INDUSTRY REACTED, THE WEATHER HAD CHANGED: THE WIND HAD PICKED UP AND SENT THE OIL SHOOTING DOWN INTO ENVIRONMENTALLY SENSIVITIVE AREAS IN THE SOUTHWEST DISTRICT OF PRINCE WILLIAM SOUND.

IF DISPERSANTS WERE A MIRACLE CURE FOR OIL SPILLS, THEY WOULD BE WIDELY ACCEPTED AND UTILIZED THROUGHOUT THE WORLD. BUT THIS IS NOT THE CASE. SIMPLY PUT, USE OF DISPERSANTS IS A TRADEOFF: IT INCREASES THE TOXICITY OF OIL TO SOME ANIMALS AND DECREASES IT FOR OTHER ANIMALS. FOR EXAMPLE, DISPERSANTS ALSO "DISPERSE" THE NATURAL OILS IN THE COATS OF SEA OTTERS AND THE FEATHERS OF MARINE BIRDS INCREASING THE RISK OF HYPOTHERMIA FOR THESE ANIMALS. DISPERSANTS INCREASE THE TOXICITY OF OIL TO MANY ANIMALS IN THE WATER COLUMN, INCLUDING FISH AND THE TINY FLOATING ANIMALS CALLED ZOO-PLANKTON WHICH SERVE AS THE BASIS OF THE MARINE FOODWEB. DISPERSANTS ARE ALSO NOT VERY EFFECTIVE AT DISPERSING PRUDHOE BAY CRUDE OIL IN SUBARCTIC MARINE ENVIRONMENTS: DR. MERV FINGUS, HEAD OF CHEMISTRY AND PHYSICS FOR ENVIRONMENT CANADA (THE EQUIVALENT OF THE U.S. EPA) REPORTED THAT DISPERSANTS DISSOLVED ONLY 10% OF PRUDHOE BAY CRUDE OIL WHEN APPLIED IN COLD WATER LABORATORY CONDITIONS.

IN A DESPERATE ATTEMPT TO KEEP THE OIL OFF THE BEACHES, DISPERSANTS WERE APPLIED IN ENVIRONMENTALLY SENSITIVE AREAS. EFFECTS WERE CLOSELY MONITORED BY REPRESENTATIVES FROM THE DEPARTMENTS OF ENVIRONMENTAL CONSERVATION AND FISH & GAME. THE LAST DISPERSANT TEST WAS ON FRIDAY, APRIL 14. THE TEST PROVED INEFFECTIVE: ALL PARTIES AGREED TO HALT FURTHER APPLICATIONS.

NOW WE ARE LEFT WITH MILLIONS OF GALLONS OF OIL PLASTERED ON ABOUT 1400 MILES OF BEACH -- A DISTANCE ROUGHLY EQUIVALENT TO THE COASTLINE FROM BOSTON TO THE TIP OF FLORIDA. THE OIL HAS WORKED ITS WAY DEEPLY INTO THE LOOSE GRAVEL AND COULD POTENTIALLY IMPACT THE HIGHLY PRODUCTIVE INTERTIDAL ZONE FOR, LITTERALLY, DECADES TO COME.

THE INTERTIDAL ZONE IS A CRITICAL HABITAT AREA IN THE SPRING. HERRING ARE COMING INTO SHALLOW WATER TO SPAWN ON KELP AND OTHER SEAWEEDS. SALMON FRY ARE MIGRATING OUT OF THE INTERTIDAL GRAVEL BEDS IN WHICH THEY OVERWINTERED AND DEVELOPED FROM THE EGG STAGE. FISH EGGS, LARVAE, AND FRY ARE EXTREMELY SENSITIVE TO HYDROCARBONS BECAUSE THESE LIFE STAGES CONTAIN HIGH LEVELS OF LIPIDS (FATS) WHICH SELECTIVELY CONCENTRATE HYDROCARBONS IN THE TISSUES. HYDROCARBONS IN LEVELS OF ONE PART PER MILLION AND LESS ARE KNOWN TO BE LETHAL TO SALMON FRY.

WILDLIFE ALSO UTILIZE BEACHES IN THE SPRING. ONE OF THE WORLD'S LARGEST CONCENTRATIONS OF MIGRATING WATERFOWL AND SHOREBIRDS CONGREGATE ON BEACHES TO FEED ON SMALL ANIMAL AND PLANT LIFE. DEER FORAGE FOR KELP AND OTHER EDIBLES ALONG THE OPEN BEACHES UNTIL THE SNOW PACK MELTS IN THE FORESTS. EAGLES AND CARNIVOROUS ANIMALS SUCH AS WOLVES, BEARS, AND COYOTES SCAVENAGE AND HUNT ON THE BEACHES, AGAIN UNTIL THE SNOW PACK MELTS. THESE ANIMALS ARE ALL SUSCEPTIBLE TO THE TOXIC EFFECTS OF HYDROCARBONS OBTAINED THROUGH INGESTING CONTAMINATED FOOD.

CRUDE OIL WEATHERS AND BIODEGRADES EXTREMELY SLOWLY IN COLD TEMPERATURE ENVIRONMENTS AND IS, THEREFORE, EXTREMELY PERSISTENT. THE OIL WILL LEACH

OUT OF THE GRAVEL BEACHES INTO THE SURROUNDING INTERSTITIAL WATER AND FROM THERE INTO THE INTERTIDAL AND NEARSHORE ENVIRONMENT: THUS, THE OILED BEACHES WILL SERVE AS A POTENTIAL SOURCE OF CONTAMINATION FOR YEARS TO COME.

THE NEARSHORE ENVIRONMENT IS A CRITICAL HABITAT FOR JUVENILE SALMON, CRAB, AND OTHER YOUNG ORGANISMS AS IT SERVES AS A NURSERY GROUNDS UNTIL THESE ANIMALS MIGRATE INTO DEEPER WATERS. MANY OF THESE YOUNG ANIMALS ARE MORE SENSITIVE TO HYDROCARBONS THAN THEIR ADULT COUNTERPARTS. HYDROCARBONS DISSOLVED IN THE WATER COLUMN, WHETHER NEAR OR OFF SHORE, WILL POTENTIALLY KILL OR DISRUPT DEVELOPMENT OF MANY JUVENILE FISH, INCLUDING POLLOCK AND HALIBUT, AND LARVAE OF KING, TANNER, AND DUNGENESS CRAB AND SHRIMP.

BECAUSE THE YOUNG OF MANY COMMERCIALLY HARVESTED SPECIES DO NOT REACH HARVESTABLE SIZE OR SEXUAL MATURITY FOR ANYWHERE FROM TWO (PINK SALMON) TO SEVEN (HERRING) YEARS, THE FULL EFFECTS OF THE *EXXON VALDEZ* OIL SPILL ON THE FISHERIES RESOURCES, THE COMMERCIAL FISHERIES, THE PRINCE WILLIAM SOUND COMMUNITIES, AND THE ENVIRONMENT MAY NOT BE KNOWN FOR SEVERAL YEARS.

PETROLEUM HYDROCARBONS CAN ALSO AFFECT HUMANS AS MANY OF THE COMPOUNDS IN CRUDE OIL ARE POWERFUL CARCINOGENS AND MUTAGENS WHICH CAN AFFECT HUMANS AT ALL LIFE STAGES, INCLUDING EMBRYOS. SHORT TERM EFFECTS INCLUDE DIZZINESS, NAUSEA, AND SKIN RASHES. LONG TERM EFFECTS COULD INCLUDE CANCERS, SYSTEMIC TOXICITY (WITH LIVER AND KIDNEY DAMAGE) AND NEUROLOGICAL DISORDERS (BRAIN DAMAGE). THE RISKS OF INCURRING DAMAGES FROM HYDROCARBONS INCREASE WITH INCREASING EXPOSURE. WHILE THE LONG TERM RISKS

OF CANCER FROM EXPOSURE TO CRUDE OIL ARE THOUGHT TO BE RELATIVELY LOW, NO SAFE LEVEL OF EXPOSURE TO CARCINOGENS HAS BEEN DEMONSTRATED. ALSO, THE COMBINATION OF PHYSICAL AND CHEMICAL HAZARDS, REMOTE WORK SITES, AND LIMITED SAFETY TRAINING MAKE THE CLEANUP A HIGH-RISK OCCUPATION FOR WORKERS, ACCORDING TO EULA BINGHAM, A FORMER HEAD OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION.

ACCORDING TO THE TAPS LEGISLATION, **ALYESKA** IS RESPONSIBLE FOR "REHABILITATION OF NATURAL RESOURCES (INCLUDING BUT NOT LIMITED TO . . . RESTOCKING FISH OR OTHER WILDLIFE POPULATIONS AND REESTABLISHING THEIR HABITATS) THAT" ARE DAMAGED OR DESTROYED FROM OPERATIONS OF ANY PART OF THE TAPS SYSTEM (9.C.2). THE QUESTION REMAINS, OF COURSE, WILL THEY?

NOTHING WILL REVERSE THE ACTION OF EXXON AND ALYESKA THAT HAVE CAUSED THIS TERRIBLE TRAVESTY IN PRINCE WILLIAM SOUND. HOWEVER, AS YOU LOOK TO IMPROVEMENTS THAT CAN BE MADE, WE THINK YOU SHOULD CONSIDER THE FOLLOWING.

I The Prince William Sound and Cook Inlet traffic control systems should be upgraded to and beyond the original (pre-1984) standards as follows:

1) build radar sites in the middle of Prince William Sound (Naked Island) and at the entrance to Prince William Sound (either Hinchinbrook or Montague Island) so traffic can be fully monitored from the entrance to the end destination;

2) review the radar systems utilized in Prince William Sound and Cook Inlet and at all shore-based radar stations within these areas;

3) review the surveillance programs of vessel traffic into and out of Port Valdez to ensure constant contact with vessel traffic;

4) review radar maintenance policies to assure the system is maintained at or above accepted industry standards;

5) request that all tankers within PWS have a tug escort from the entrance to the destination, and vice versa;

6) require that tanker traffic be limited to daylight hours only between the tanker anchorage at Knowles Head and the tanker terminal, Alyeska, and vice versa, until the above requirements are implemented;

7) require that tankers transporting TAPS oil between PWS and Cook Inlet use the outside passage (i.e., enter and leave PWS through Hinchinbrook Entrance).

II. Tankers and ships involved with the transportation of hazardous substances, including TAPS oil, in the Gulf of Alaska and Alaskan waters should be upgraded as follows:

1) eliminate third party ownership of tankers involved in the transport of TAPS oil by requesting that only tankers directly owned by the parent oil company owners of Alyeska be permitted to transport TAPS oil;

2) request that the 16 tankers rated as "low" in Arthur McKenzie's 1987 "Guide to the Selection of Tankers" be eliminated from the TAPS trade, along with any tankers which receive a "low" rating in the McKenzie ratings in future years;

3) request that owners of the 8 tankers rated as "fair" in Arthur McKenzie's 1987 "Guide to the Selection of Tankers," along with any other tankers which receive a "fair" rating in the McKenzie ratings in future years, be notified that, should any of these tankers be rated as "low" in the McKenzie ratings in subsequent years, these tankers would be eliminated from the TAPS trade;

4) request that the Coast Guard contract an independent consulting firm to expand the 1988 "Marine Structural Casualty Study" (Purtell et al.) to determine the relationship

between structural failures and: hull length; tanker age; double versus single hulls; location of trade (Gulf of Alaska, North Atlantic, etc.); weather (if possible); failure location; seasonal dependence; recent inspection; and all other pertinent variables;

5) request that the Coast Guard contract an independent consulting firm to develop a revolving plan for U.S. flagship tanker construction and replacement incorporating the results of the above study; and

III. The Coast Guard's and the industry's personnel policies should be reviewed and upgraded, including but not limited to, the following:

1) request that all captains who operate tankers within PWS and Cook Inlet have pilotage licenses for these areas;

2) request that all captains operating tankers within PWS remain on the bridge of the tanker from the entrance to the destination while the tanker is underway;

3) request that another officer remain with the captain on the bridge of tankers within PWS from and to the entrance until replaced by a pilot;

4) request that all pilots operating tankers within PWS remain on the bridge of the tanker from either Hinchinbrook entrance, if the pilot can be safely transferred, or Knowles Head to the destination, and vice versa, while the tanker is underway;

5) request that officers on bridge-watch for tankers outbound in PWS pass a breathalyzer test before the tanker is allowed to leave the terminal;

6) request that officers applying for positions with vessels transporting hazardous substances in the Gulf of Alaska are more carefully screened, specifically with respect to their past drinking/drug record; and

7) request that the National Transportation and Safety Board review the manning requirements for all vessels transporting hazardous substances.

- IV. The federal resource agencies' budgets should be increased so that these agencies can:

  1) be equipped with the staff, money, and time to pursue all cases involving spilled oil, realizing that fines collected from tanker owners could potentially exceed the cost to the federal government of hiring additional personnel (and we encourage this at the state level as well); and

  2) review oil spill regulations, including the TAPS fund about which we now have serious doubts, in consultation with the UFA and the appropriate regional fishing organizations, and raise the penalties so that these agencies can impose realistic, stiff fines for spilling oil; and

  3) investigate the oil spill clean up technologies and methodologies used in countries such as Norway, an acknowledged leader in mechanical methods, from the perspective of targeting containment and mechanical removal with the best available technology as the primary oil spill response for this country.

- V. The federal resource agencies should review all federal oil spill contingency plans and that the plans should specifically include the following:

  1) evidence that the recommended equipment (booms, skimmers, etc.) is the Best Available Technology (BAT);

  2) provisions that the BAT is stockpiled at the sites designated in the new contingency plans (i.e., Alyeska, CIRO, hatcheries, etc.);

  3) provisions that the BAT is also stockpiled on site at boat harbors (i.e., Cordova, Seward, Kodiak, Homer, Ketchikan, Sitka, etc.) in sufficient quantities to enable the rapid deployment of men and equipment to protect critical habitat areas which should be pre-designated in the appropriate contingency plan;

4) provisions for oil industry-sponsored annual sessions to train hatchery personnel and fishermen in boom deployment and other containment/recovery techniques;

5) provisions that the ability to implement the plan rapidly be maintained at all times.

- VI. The federal agencies should review the dispersant and burn policies from the perspective that these methods do not remove the oil but disperse it into other compartments, specifically:

  1) determine the short- and long-term toxicities of these methods on sea life, wild life, human life, and the environment;

  2) determine the effectiveness of these methods at dispersing Prudhoe Bay crude oil, unweathered and weathered, in subarctic marine environments;

  3) include the option of burning U.S. flagship tankers to mitigate environmental damages from large oil spills.

- VII. The entire Alyeska terminal, including the ballast water treatment system, should be reviewed by the Department of Interior or an independent consulting firm, as per the Congressional stipulations in the TAPS legislation. This is necessary both to upgrade the environmental pollution control systems (which has never been accomplished in 12 years of operation) and to determine what the facility needs in terms of number of crude oil storage tanks to ensure that there is adequate storage capacity for oil at the terminal should there be an emergency or weather related delay in tanker traffic requiring that pipeline throughput be slowed or stopped. Currently, because of the inadequate number of crude oil storage tanks, the oil companies are forced to bring tankers into the port in hazardous conditions despite the danger to the environment and the public.

- IX. The federal government should take immediate measures to set up, and have Alyeska fund, Technical Advisory Groups (TAGs) at oil industry facilities that handle or process Prudhoe Bay crude oil, including Alyeska, the North Slope, Cook Inlet, etc., and that these TAGs are specifically:

1) modeled after the Santa Barbara County, CA, or similar programs;

2) composed of representatives from local communities, the fisheries, and the hatcheries, if appropriate, because it was demonstrated in the Exxon Valdez oil spill that the local people are the most responsive in an emergency, took the most constructive actions, were the most knowledgeable about the local area, and were the most concerned about their welfare, environment, and resources;

3) mandated to oversee, monitor, and review operations, including oil spill contingency plans, as primary goals;

4) empowered to contract independent consulting firms to achieve primary goals; and

5) empowered to enforce permit compliance through stiff penalties.

THE FISHING INDUSTRY AS A WHOLE IS NOT AGAINST THE OIL INDUSTRY. WE ONLY REQUEST NOW, AS WE HAVE ALL ALONG, RESPONSIBLE DEVELOPMENT OF RESOURCES. THIS INCLUDES A FIRM COMMITMENT FROM INDUSTRIES THAT HAVE THE POTENTIAL TO IMPACT THE WATER QUALITY AND ENVIRONMENT TO MINIMIZE THIS IMPACT. IT INCLUDES A FIRM COMMITMENT FROM THE RESOURCE AGENCIES THAT PERMIT COMPLIANCE WILL BE STRICTLY ENFORCED BY THOROUGH MONITORING OF OPERATIONS. AND IT INCLUDES A FIRM COMMITMENT FROM CONGRESS THAT COMPLIANCE WITH ITS STIPULATIONS AND PROMISES WILL BE MONITORED AND ENFORCED.

SURELY THESE REQUESTS ARE NOT UNREASONABLE.

Before the Senate Committee on the Environment and Public Works, Environmental Protection Subcommittee, April 19, 1989 Hearing on the Oil Spill Disaster in Prince William Sound, Alaska

TESTIMONY OF MICHAEL M. WENIG[1] - ON BEHALF OF TRUSTEES FOR ALASKA AND THE ALASKA CENTER FOR THE ENVIRONMENT

INTRODUCTION

Mr. Chairman and members of the Committee:

Thank you for the opportunity to testify today on the environmental disaster in Prince William Sound, Alaska. Prior to the spill, Prince William Sound was one of the richest, most biologically diverse, pristine, and stunningly beautiful coastal environments in the world. Now, the Sound and several hundred other miles of Alaskan coast that have been impacted by the spill, are most noteworthy as a testament to the callous disregard with which the oil industry has treated Alaska and the Nation. We hope that the Sound and additional miles of Alaskan shoreline will recover but we are disheartened by the sheer magnitude of the spill and miles of coastline impacted and, moreover, by the daily reports of Exxon's bumbling efforts to contain the spill and mitigate its destruction.

Alaskans generally have a diversity of outlooks and opinions that is as varied as the State's diversity of natural ecosystems. But Alaskans have reacted uniformly to this disaster. We mourn

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1 Attorney, Trustees for Alaska (725 Christensen Dr., No. 4, Anchorage, Ak. 99501-2101 (907)276-4244). Trustees is a non-profit, public interest environmental law firm based in Anchorage that represents its own roughly 700 members and numerous other environmental groups within the State of Alaska. The Alaska Center for the Environment is a non-profit organization which specializes in advocacy and public education on environmental issues in Alaska.

the wanton destruction of Prince William Sound as if a part of our soul was destroyed. We are outraged at the oil industry's clear inability to foresee and prepare for a spill of this magnitude and to promptly and effectively respond to the spill. And, finally, we are incensed at having been misled by the industry's repeated assurances that a spill of this kind would never happen and, even if it did, that the industry could adequately respond to it.

Congress must respond to this spill (1) by pressuring the Executive Branch to take all possible enforcement actions against Exxon and Alyeska; and (2) by passing appropriate legislation to strengthen the regulatory requirements regarding the prevention of, response to, and liability for, spills resulting from the transport of oil in our Nation's waters.

While these two responses are necessary, they are only narrowly focused, short term "band aid" responses to the severe risks posed to the environment by oil and gas operations, as demonstrated by the Prince William Sound disaster. In order to more substantially reduce the risks that oil and gas operations pose to the environment, Congress must also take the following additional steps. First, Congress must change its overall regulatory approach to the oil industry, from a hands-off stance to one that fully recognizes the magnitude of the risks to the public health and the environment from inadequately regulated oil activities. The disaster in Prince William Sound is the inevitable consequence of this hands-off regulatory approach.

Second, Congress must take the lead in promoting the development of energy conservation and alternative, clean energy sources, so that we can minimize and eventually eliminate the number of important ecosystems that need to be put at risk from oil activities. Neither Alaskans nor anyone else in the United States should have to sacrifice their livelihood or any more natural treasures for the sake of an oil-dependent economy, when that dependance can be substantially reduced and, ultimately, eliminated, through the promotion of conservation and alternative energy sources.

Third, Congress must prohibit any further consideration of leasing and development of the federal portion of the outer continental shelf for oil and gas operations, until the oil industry demonstrates, beyond any doubt, that it can conduct its activities in a manner that does not jeopardize the incalculable natural environmental values of those regions. Finally, those sensitive ecosystems, like Alaska's Bristol Bay and the Arctic National Wildlife Refuge, must be closed to oil and gas operations altogether.

I. STATUTORY AMENDMENTS REGARDING OIL OPERATIONS MUST BE ADOPTED AND OTHER, NARROWLY FOCUSED FEDERAL ACTIONS MUST BE TAKEN

The spill in Prince William Sound has demonstrated not only that the oil industry was unprepared to prevent and remedy such a disaster, but also that existing federal law insufficiently addresses oil spills and that other federal actions are necessary. We strongly urge Congress to begin by consolidating

the various statutes addressing oil spill contingency planning and liability into one statute so that the applicable standards are clear. Congress should also reassess and strengthen the applicable standards for training and licensing of tanker pilots, captains, crews, and Coast Guard personnel overseeing tanker traffic.

In the context of the current legislative structure, we urge that Congress make the following legislative changes and take several additional steps:

- Ports and Waterways Safety Act

  - All vessels that transport oil or hazardous substances must be double-hulled and equipped with bow-thrusters for maximum maneuverability.

  - Tanker capacity should be limited to that volume which can be handled in a worst-case spill, as demonstrated by successful simulation drills overseen by impartial experts.

- Clean Water Act

  - The citizen suit provision in section 505(a), 33 U.S.C. § 1365(a), should be amended to indicate clearly that it applies to oil spills from tankers. Amendments to this provision should also indicate that the "ongoing violation" rule expressed by the Supreme Court in Gwaltney of Smithfield, Inc. v. Chesapeake Bay Foundation, 479 U.S. 1029 (1987), does not apply to citizen suits involving oil spills.

  - The liability limitation in section 311(f) of the Clean Water Act, 33 U.S.C. § 1321(f), should be eliminated

entirely or, at least, raised so that it more accurately reflects the cleanup costs and natural resource damages that might result from a "worst-case" oil spill. If a limitation on liability is kept, the exception to the limitation, for willful negligence or willful misconduct within the privity "and" knowledge of the owner or operator, should be amended so that the exception applies when willful conduct occurs within the privity "or" knowledge of the owner or operator. This approach would be consistent with an analogous provision in section 107(c)(2) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9607(c)(2).

- The limitation on civil penalties in section 311(b)(6) should be raised substantially and Congress should direct that civil penalties collected for each incident be added to the fund used for the restoration of damaged resources rather than deposited into the general fund.

- The provisions for criminal penalties in section 309(c) should be amended so that it is crystal clear that the provision applies to oil spills covered under section 311.

- Trans-Alaska Pipeline Authorization Act (TAPAA)

- The $14 million liability cap should be raised so that a greater share of the total cost of a spill is born directly by the discharger.

- The total $100 million fund should be raised to more accurately reflect the social, including environmental, costs of

a worst-case spill. $1 billion is probably a safe estimate of this total cost.

- Clear standards or presumptions should be set forth in TAPAA to enable those individuals who incur damages indirectly from a spill or, directly, but in a manner that is not readily susceptible of scientific proof, to recover damages.

- TAPAA should require contingency planning for the entire marine transport portion of the pipeline system.

- Federal Budgets

The budgets provided to those federal agencies responsible for regulating the transport and discharge of oil should be reassessed and strengthened to ensure adequate federal oversight of oil operations. In particular, the Coast Guard's budget for monitoring and regulating the transport of oil by vessels should be strengthened. A fee system or tax on oil industry profits should be implemented to finance a mechanism for Coast Guard monitoring of tanker traffic to the fullest extent feasible with modern technology.

- Contingency Planning

- Environmental impact statements should be prepared for all spill scenarios addressed in each plan submitted for governmental approval.

- Contingency plans should be required to provide the full details of the kind of response that would be necessary for a worst-case spill, defined as a discharge of all of the contents of a vessel or facility in poor weather conditions. The Alyeska

contingency plan included a 200,000 barrel spill in its set of possible "scenarios," but did not set out in detail the extent and nature of the equipment, manpower, and organization that would be required to respond to a spill of this, or greater, magnitude.

- Contingency plans should not be permitted to be approved by the government if, when fully implemented, the activities addressed in the plans will still pose an unacceptable risk to the public health or the environment.

- There should be an opportunity for public participation, through notice and comment, in the government's process for reviewing and approving local contingency plans.

- Congress should require more testing of chemical dispersants in different weather and sea conditions. The precise chemical constituents of dispersants should be made available to the public.

- Contingency plans should require that terminal, pipeline, and tanker operators post adequate bonds which can be used to immediately finance containment and cleanup operations.

- Contingency plans should require that local, community response teams be organized, trained, adequately funded, and coordinated with governmental and industry cleanup teams, so that they can respond immediately when a spill occurs.

- Contingency plans should be required to include simulation and surprise drills, in all weather conditions.

- The extent of equipment, including backup equipment, required to adequately contain and clean up a spill should be reassessed. The Coast Guard should specifically determine what equipment, if any, will work under the harsh conditions typically found in Alaskan waters. All equipment required for a worst-case spill, including equipment for rehabilitating wildlife, should be stored either on-site or within each relevant State. Congress should provide sufficient funding to revitalize the currently defunct Oil and Hazardous Materials Simulated Test Tank to test the adequacy of oil spill cleanup equipment.

- Individual tankers should be required to have their own contingency plans, including plans for the critical first 24-48 hours after a spill. These plans should be coordinated with the plans developed by terminals.

- The Office of Technology Assessment and the National Academy of Sciences should be directed to review the adequacy of all existing contingency plans and to estimate the risks to the public health and the environment posed by all operations covered under existing plans.

- Congress should establish clear, specific criteria for federal and/or State governmental cleanup response in lieu of an insufficient private responce.

- <u>Additional Measures for Prince William Sound</u>

- The Vessel Traffic System for the Sound should be re-examined and revised. In particular, the VTS should include an

alarm system for alerting the Coast Guard and pilots immediately when tankers go out of established shipping lanes.

- The Coast Guard should establish, after public notice and comment, clear standards based on weather and ice conditions, for when tanker traffic should be restricted or prohibited altogether.

II. THE OIL INDUSTRY'S RECORD ON ENVIRONMENTAL PROTECTION THROUGHOUT ALASKA IS ABYSMAL

Exxon's and Alyeska's poor preparation and response to the Prince William Sound spill was no surprise to those of us who have been monitoring the oil industry's activities elsewhere in Alaska. These activities demonstrate a pervasive disregard for the environment which was manifested on a large scale in Prince William Sound but which is also manifested in many other instances throughout the State.

The Alyeska pipeline terminal itself is the next closest example of the oil industry's disregard for the environment. The ballast water treatment plant at the terminal has never been satisfactorily operated, resulting in the continual discharge of poorly treated oily wastewater. This wastewater contains several toxins, including benzene, toluene, and xylene, which are now being found in the tissues of fish around Port Valdez.

The hydrocarbon vapor recovery system at the terminal has also not worked satisfactorily, at least, since the introduction of natural gas liquids into the pipeline in 1987, resulting in the emission from the facility of several hundred tons of

hydrocarbons daily. This facility is one of the largest, if not the largest, single source of volatile organic compounds in North America.

We have estimated that the pipeline operations themselves emit roughly 90 tons of volatile hydrocarbons daily from the ten pump stations along the 800 mile stretch of pipeline.

On the Kenai Peninsula, roughly 200 hazardous waste sites, all containing wastes generated from oil production and/or refining operations, have been identified and investigated by the State. Many of these sites have contaminated the ground and surface waters on the Peninsula.

The Tesoro oil refinery, also on the Kenai peninsula, is one of the largest sources of air, water, and soil pollution in Alaska. Hydrocarbons have contaminated the soil to a depth of roughly four feet on the refinery grounds. At least forty sites have been located on the refinery grounds where wastes were improperly disposed. And, several air pollutants are emitted in large quantities from numerous turbines without adequate emission controls.

The oil industry's operations on the North Slope provide additional examples of the industry's lax environmental protection standards. "Oil in the Arctic," a 1988 report prepared by Trustees for Alaska, the Natural Resources Defense Council, and the National Wildlife Federation (the Executive summary is attached to this testimony), documents numerous instances of harmful air and water pollution associated with

drilling activities in the arctic. These instances include violations of State and/or federal permits, as applicable. Most notably among these examples is the industry's long-standing practice of discharging varieties of oil production wastes, many of which exhibit the characteristics of "hazardous wastes" under the federal Resource Conservation and Recovery Act, directly onto the tundra or into unlined "reserve pits." The toxic materials in many of these pits either leak or are periodically displaced from the pits onto the tundra.[2]

In sum, while the recent destructive spill in Prince William Sound is perhaps the worst environmental catastrophe related to the oil industry's operations in Alaska, it is by no means the only one. For those of us who have been following the industry's practices throughout the State, Prince William Sound is only perhaps the most egregious manifestation of a pattern of lackluster industry efforts to protect the environment.

III. THE OIL INDUSTRY'S TOTAL FAILURE TO FORESEE, PREPARE FOR, AND RESPOND TO THE PRINCE WILLIAM SOUND SPILL AND THE INDUSTRY'S POOR RECORD OF ENVIRONMENTAL PROTECTION ELSEWHERE IN ALASKA IS A RESULT OF A PERVASIVE GOVERNMENTAL ATTITUDE THAT THE OIL INDUSTRY SHOULD BE HELD TO A LESS DEMANDING STANDARD THAN OTHER INDUSTRIES

The oil industry's generally poor record in protecting the environment results, in large part, from a pervasive and unwarranted governmental attitude that the oil industry should be

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[2] A recently leaked "draft final" report by EPA staff confirms the conclusions reached in "Oil in the Arctic." Following its release to the public, however, EPA officially denounced the report and has stopped all further investigations of oil industry practices in the arctic and elsewhere in the United States.

given special regulatory treatment. This attitude is manifested at many levels and in several areas of environmental regulation.

For example, Congress exempted "petroleum" from the definition of those "hazardous substances" addressed under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), 42 U.S.C. §§ 9601-9675, even though many of the constituents of pure crude oil would otherwise qualify as a hazardous substance and petroleum related-wastes comprise a large part of those untreated, abandoned wastes that the CERCLA cleanup remedies were designed to address.

Similarly, in the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901-6991i, Congress specifically authorized the Environmental Protection Agency to choose to exclude, from regulation under the provisions for "hazardous wastes," substantial volumes of wastes generated from the production of oil and gas, even though many of those wastes exhibit the kinds of characteristics that would render them otherwise qualified for regulation as "hazardous wastes."[3]

Given the opportunity provided by Congress, EPA chose to exempt oil production wastes from regulation as "hazardous

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[3] Although Congress created a special exemption for oil production wastes, Congress did not give EPA completely unfettered discretion to decide to exempt those wastes from regulation as "hazardous wastes." Trustees for Alaska and the Alaska Center for the Environment have a lawsuit currently pending in the D.C. Circuit Court of Appeals challenging, as arbitrary and capricious and contrary to EPA's legal authority under RCRA, the Agency's decision to exempt oil production wastes from regulation as hazardous wastes.

wastes," even though the Agency's technical staff and an inter-agency work group recommended that at least the low volume, relatively toxic "associated" wastes be regulated as hazardous wastes.[4]

There are still other unwarranted examples of Congress' special treatment of the oil industry. The federal Clean Water Act expressly exempts from the rigorous permitting requirements under the "National Pollutant Discharge Elimination System" uncontaminated oil discharges in stormwater runoff from oil and gas exploration, production, processing, or treatment operations or transmission facilities. EPA's regulation of the oil industry, under those provisions of the Clean Water Act that actually apply to the industry, also reflects a "hands-off" regulatory attitude toward the industry. For example, EPA has unilaterally and unlawfully chosen not to require that many discharge sources related to oil production activities in Alaska obtain federal discharge permits under the Clean Water Act. Instead, the Agency has deferred to the State's "wastewater discharge" permitting program for these sources, even though EPA

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[4] In a June 1988 memorandum to EPA's Administrator, EPA's Assistant Administrator for Solid Waste and Emergency Response recommended that the Agency reject the work group's recommendation, in spite of "great reservations" expressed by the Agency's General Counsel regarding the legality of the recommendation, because regulation of the "associated wastes" as hazardous wastes would be "too disruptive and burdensome to both the regulated industry and the regulating agencies." The Assistant Administrator's conclusion regarding industry impacts flatly contradicts the conclusion reached in his staff's draft regulatory determination, that the economic impact of regulation of these wastes as hazardous wastes is "very small."

has not found that the State program is qualified to implement the requirements of the federal statute.[5]

In addition, EPA is years overdue in adopting nationwide technology-forcing regulations for coastal and offshore oil and gas production facilities. Those facilities discharge annually large quantities of pollutants and, in particular, toxic pollutants into our Nation's waters.

The federal government's regulation of the oil industry under section 404 of the Clean Water Act, which applies to the discharge of dredge or fill material into waters of the United States, also reflects a pervasive inability of the government's top officials to stand tough against the oil industry. In a recent proceeding involving a 404 permit application to build a gravel causeway from the shore to an artificial gravel island in the Beaufort Sea, the Department of Interior's Fish and Wildlife Service headquarters office in Washington, D.C. apparently ordered, without explanation, that the Service's Alaska regional office not to object to the application, even though the regional office had recommended that the application be denied.

Although the Corps of Engineers' District Engineer issued a decision refusing to allow the causeway to be constructed because of potential adverse impacts on several species of fish that

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[5] Trustees for Alaska, the Alaska Center for the Environment, the Northern Alaska Environmental Center, and the Natural Resources Defense Council are currently involved in litigation against Arco Alaska, Inc., regarding the company's discharges from North Slope operations into waters of the United States without a federal NPDES permit.

migrate along the coast, the District Engineer was subsequently overruled by the Corps' Portland Regional and Washington, D.C. headquarters office, after apparently intense private lobbying pressure from the oil industry.

At present, the Department of the Interior's Minerals Management Service, whose obvious mission is to promote the production of oil resources, has been given the lead in developing studies on fisheries impacts from gravel causeways in the Beaufort Sea. The MMS' apparent lead role in the 404 process is particularly troubling, given that the Corps, EPA, NOAA, and the Fish & Wildlife Service have traditionally played the lead roles in assessing whether a Clean Water Act section 404 permit should be issued. The MMS' role can reflect only a blatant attempt to skew the 404 permitting process in favor of the oil industry.

The State of Alaska's approach to the oil industry also reflects a "hands off" regulatory attitude. The State's Department of Natural Resources has consistently issued leases for oil drilling on State submerged lands off the North Slope, without fully considering the environmental impacts of the leased activities.[6] The State's Department of Environmental Conservation, which is responsible for regulating pollution within the State, has also not taken the kind of tough regulatory

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[6] Trustees for Alaska and the Northern Alaska Environmental Center have lawsuits pending in State courts challenging two of those leases.

approach that is warranted. For example, recently promulgated regulations allow the oil industry to dispose of oil production wastes simply by dumping them into "freeze back" pits dug in the tundra and covering the pits with gravel. The DEC's approach results, in large part, from the State legislature's continual refusal to provide the Agency with the resources the Agency needs to adequately perform its environmental responsibilities under federal and State law. As can be expected, the legislature's position results, to a significant degree, from lobbying pressure from the oil industry. Thus, while the State does not provide the overt regulatory breaks for the oil industry as opposed to any other industry that are clearly evident at the federal level, the State nevertheless does not adequately regulate that industry.

In short, the adage "you get what you pay for" is thoroughly appropriate here. The federal and State governments have given the oil industry breaks at many steps in the regulatory process. The industry's approach to the Prince William Sound spill and its approach to environmental protection in general is a direct consequence of this lax and wholly inappropriate regulatory attitude toward the oil industry. If Congress really intends to reduce the environmental risks posed by oil operations, Congress must toughen its overall regulatory stance toward the oil industry.

IV. CONGRESS SHOULD PROMOTE ENERGY CONSERVATION AND CLEAN, ALTERNATIVE ENERGY SOURCES SO THAT PRISTINE OR OTHERWISE IMPORTANT ECOSYSTEMS DO NOT NEED TO BE PUT AT RISK FROM OIL OPERATIONS

The steps discussed above--narrowly focused changes in laws regarding oil transport and liability and a new regulatory attitude toward the oil industry, in general--are only part of the overall solution. The third and most critical step is to diligently promote and pursue the development of energy conservation and of clean, alternative energy supplies so that we can minimize the number of pristine environments that need to be put at risk of being destroyed by another oil spill or other calamity.

A 1988 report by the Natural Resources Defense Council demonstrates that the amount of energy that would be saved from only several of the many potential energy conservation measures--raising automobile fuel-efficiency standards, improving the efficiency of existing residential appliances and heating systems, and setting higher efficiency standards for new residences and improving mass transit--is roughly double the equivalent amount of energy that would be gained from the development of currently un-leased areas in various regions of the United States' outer continental shelf and in the Arctic Refuge.[7]

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[7] Of course, reduction in the future potential use of oil and gas through the increased use of conservation and alternative energy sources will not only reduce the risk posed to those sensitive environments in which oil development occurs, but will also reduce the substantial amount of extremely damaging air and

(continued...)

Given these potential energy savings, it is thoroughly irresponsible to place these ecosystems at risk by allowing oil development in these areas. Congress must change its myopic outlook toward environmental "protection" by actively promoting these and other conservation measures.

The history of the Department of Energy's budget for research and development on energy conservation is a testament to this country's misguided approach to environmental protection. In 1980, DOE's budget for research in energy conservation was roughly $344 million. During the last eight years the budget was slashed by over 50%. DOE's request to Congress for FY 1989 was a paltry $89 million. Congress must drastically increase this budget and take additional measures to promote the development of conservation measures in order to truly eliminate the risks of future oil disasters in this Country.

CONCLUSION

Prior to the recent spill, Prince William Sound was a priceless environmental treasure of international significance. Now, however, the Sound and those hundreds of other miles of Alaskan coastline, including several national parks, that are impacted by the spill are significant as a testament to the oil industry's single-minded pursuit of profits at the expense of the environment. Alaskans will not, and Congress should not,

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[7](...continued)
water pollution that results from our consumption of those fossil fuels.

tolerate the oil industry's callous attitude toward the environment in the future.

RWA

OIL IN THE ARCTIC: THE ENVIRONMENTAL RECORD OF OIL DEVELOPMENT ON ALASKA'S NORTH SLOPE

TRUSTEES FOR ALASKA

NATURAL RESOURCES DEFENSE COUNCIL

NATIONAL WILDLIFE FEDERATION

Prepared By:

Lisa Speer
Natural Resources Defense Council

and

Sue Libenson
Trustees for Alaska

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PREFACE

The environmental record of oil development on Alaska's North Slope sends up an indisputable red flag as debate continues over proposed oil development in the Arctic National Wildlife Refuge.

In order to fully understand what oil exploration and development can do to the Arctic National Wildlife Refuge's sensitive ecosystem, it is imperative to recognize what has already happened at Prudhoe Bay.

This report takes a hard look at the facts.

It documents alarming environmental problems at Prudhoe Bay and a disturbing record of industry compliance with environmental laws and regulations. It identifies vital missing data on the effects of pollution and habitat degradation. The report details the inadequacies of state and federal laws and regulations designed to protect the arctic environment, and highlights the absence of aggressive enforcement.

Information was collected through a review of published material, state and federal regulatory agency files and interviews with agency personnel. The study area is the Prudhoe Bay region of the Arctic Coast of Alaska, between the Colville and Canning Rivers. Compliance records were researched for the years 1980 to 1987.

This report does not address impacts of offshore oil operations, effects on subsistence hunting and fishing, or worker health and safety. Nor does it detail environmental impacts that could result from oil development in the Arctic National Wildlife Refuge, 60 miles to the east of Prudhoe Bay.

But the Arctic Refuge faces the same fate as Prudhoe – perhaps much more severe – if leasing and development occur there.

For example, the 180,000-animal Porcupine Caribou herd, which migrates from Canada to its historic calving grounds in the Arctic Refuge each year, may be far more sensitive to disturbances related to oil and gas activities than the much smaller non-migratory Central Arctic Caribou herd, which inhabits the Prudhoe Bay area.

Moreover, the lack of data on effects of air and water pollution and habitat degradation related to arctic oil development means that this report may understate the potential harm oil development poses for the Arctic Refuge.

The U.S. Department of the Interior's "1002 Report" on oil exploration and development in the Refuge failed to adequately address most of the issues raised in this report including air and water pollution; solid, liquid and hazardous waste disposal; land disturbance and reclamation; and agency enforcement of and industry compliance with environmental laws and regulations.

The findings of this report lead the Natural Resources Defense Council, Trustees for Alaska and the National Wildlife Federation to conclude that oil development in certain highly sensitive areas of the Arctic is not appropriate. In addition, further oil development in the Arctic should not be considered until the consequences of such activity in the Prudhoe Bay region are fully understood and until the oil industry and responsible agencies demonstrate that they can operate in compliance with the environmental laws of the State of Alaska and the United States.

EXECUTIVE SUMMARY

To assess the environmental record of oil development on Alaska's North Slope, this report critically examines the environmental consequences of oil activities in the Arctic, the ability of existing laws and regulations to protect the fragile arctic environment, and the industry's record of compliance with those laws and regulations.

FINDINGS

- Pollution of air and water and major landscape impacts have resulted from oil development, which has transformed Alaska's Prudhoe Bay region into one of the world's largest industrial complexes, sprawling over several hundred square miles of the arctic coast.

- The conduct of oil and gas industries on the North Slope ranges from environmentally responsible to irresponsible – including instances of serious disregard for the environment. Hundreds of violations of state and federal regulatory controls to protect air, water and land have occurred, from minor infractions to at least one conviction on multiple criminal counts.

- Existing environmental laws and regulations as currently implemented and enforced fail to prevent significant environmental deterioration caused by oil and gas activities.

- Restoring large industrialized areas in the Arctic has not been shown to be economically or technically feasible over the long term, and industry predicts extremely high costs to restore developed sites on the North Slope.

- A systematic failure by resource agencies to adequately monitor compliance and environmental impacts and to pursue enforcement actions aggressively on the North Slope has left serious voids in data. This information gap will persist unless monitoring and enforcement are substantially improved.

ENVIRONMENTAL IMPACTS

The Arctic Coast's sensitive tundra and wetlands are slow to recover from disturbance, making development impacts of greater concern than for other areas. Limited sunlight, extreme cold, nutrient-poor soils and permafrost result in low rates of plant growth and excessively prolonged recovery.

The following summaries describe the findings of this report in the principal areas of research: water and air pollution, hazardous and other waste disposal, habitat impacts, and data gaps. Each topic is discussed comprehensively with references in the body of the report. In many areas, information about impacts has only recently begun to be collected. Therefore, to be as current as possible, some findings are derived from raw data in agency files and reports and studies in draft or preliminary form. These are noted in the text or footnotes. To ensure its accuracy, this report has been reviewed by a wide range of experts.

Water Pollution

Drilling and production wastes, oil spills and wastewater discharges are major sources of water pollution on the North Slope.

Water pollution in the Arctic is complicated by the fact that most of the North Slope is characterized as wetlands. The flat terrain and permafrost limit drainage and allow water to collect on the surface in tundra ponds and wetlands that are often interconnected. Disposal of waste onto the tundra can thus potentially affect surface water over large areas.

Sources

More than 250 reserve pits, each containing up to 13 million gallons of used drilling muds and associated wastes, pose risks of toxic pollution on the North Slope. Analyses of wastes in these above ground, gravel containment structures typically reveal an array of heavy metals, hydrocarbons, and additives. Elevated levels of aluminum, cadmium, barium, mercury, chromium, lead and aromatic hydrocarbons occur in reserve pit fluids. These fluids accumulate in pits and are pumped directly onto the tundra, spread on gravel roads or injected underground. In 1986, more than 100 million gallons of reserve pit fluids were discharged onto the tundra or applied to North Slope roads. An indeterminate amount of pit fluid escapes through leaking, breaching or overtopping reserve pit walls.

Alaska's Department of Environmental Conservation (ADEC) recorded 953 spills involving 4,600 barrels of oil and other liquids on the North Slope during 1985 and 1986. Half the reported spills were of diesel and crude oil, with other spills involving gasoline, hydraulic oil, glycol, methanol, drilling mud, acid and turbine fuel. Damaged drums, faulty connections and valves, highway accidents, human error, ruptured lines, leaks and tank overtopping were typical spill causes.

Water Pollution Impacts

Tundra ponds associated with reserve pits have been found to contain elevated levels of toxic metals and hydrocarbons when compared to concentrations in control ponds, according to U.S. Fish and Wildlife Service (FWS) studies. These studies found evidence that contaminants are dispersing through tundra wetlands to distant ponds. Similarly, an unpublished study reported by the Environmental Protection Agency (EPA) found considerable amounts of hydrocarbons in tundra soils hundreds of feet from reserve pits.

Researchers at FWS have determined that elevated contamination in tundra ponds near reserve pits and in hydrologically connected distant ponds is linked to declining diversity and abundance of invertebrate species that are important food sources for North Slope birds.

Crude oil and diesel spills can kill vegetation. While injury to roots may not be immediately obvious, slow deterioration can result in a high degree of future winter kill. Plant stress due to oil spills is apparent at various North Slope locations, particularly in the Deadhorse area where many oil field service industries are located.

Regulatory Problems

State and federal controls on discharges of polluted water from reserve pits do not adequately protect water quality on the North Slope. In some cases, there are no effluent limits on toxic contaminants in reserve pit fluids, and in other cases the limits are not stringent enough to protect aquatic life. The Environmental Protection Agency has failed altogether to issue required discharge permits.

* ADEC's reserve pit discharge permits set no effluent limits for aluminum, nickel and zinc. Yet industry data show that these metals occur frequently in reserve pit fluids at concentrations exceeding EPA's acute and/or chronic toxicity criteria for protection of freshwater aquatic life.

- The effluent limits that ADEC *has* imposed allow discharges of pollutants in reserve pit wastewater at levels exceeding EPA's acute and chronic toxicity criteria for cadmium and copper and the chronic toxicity criteria for lead and mercury, potentially leading to exceedences of these criteria in receiving wetlands. Since Alaska adopted EPA's criteria for these four metals in January 1987, ADEC's permit allows discharges that may cause exceedences of the State's own water quality standards in receiving wetlands.

- There is evidence that, even if reserve pit discharges were required to meet EPA's water quality criteria, freshwater aquatic life on the North Slope would not be adequately protected. The FWS found elevated levels of arsenic in tundra ponds that receive reserve pit water, as well as in hydrologically connected ponds. While the levels were generally far below EPA's established chronic toxicity criterion for protection of freshwater life, the arsenic showed a strong correlation with reduced biological diversity in the ponds.

- A very serious concern is the EPA's failure to issue required National Pollution Discharge Elimination System (NPDES) permits controlling the discharge of millions of gallons of polluted water from reserve pits into tundra wetlands. When Conoco submitted a permit application for such a discharge, EPA indicated that reserve pit dewatering was "assigned a low priority!" The Clean Water Act does not give EPA discretion to decline to issue NPDES permits for discharges of polluted water into waters of the United States, nor does it allow companies to discharge pollutants into waters of the U.S. without a permit.

Compliance

In 1986, discharges from almost half of the reserve pits dewatered to the tundra violated state standards. In 1984 and 1985, 86% and 91% of the pits dewatered to the tundra violated state standards. Compliance would have been even worse had state permits required reserve pit discharges to meet EPA's water quality criteria for protection of freshwater aquatic life.

Industry discharge monitoring records reveal hundreds of violations of permit standards for seawater treatment and domestic wastewater discharges since the early 1980s.

Despite this record of non-compliance, agency files indicate few if any fines or other penalties are levied against North Slope dischargers who violate state and federal permit standards.

Air Pollution

Sources

Oil and gas facilities on the North Slope emit 9,000-27,000 tons of nitrogen oxides a year – or roughly the amount emitted annually by Washington, D.C.

Contaminated road dust and "black smoke" generated during flaring of natural gas are other sources of air pollution. Black smoke plumes emitted by North Slope facilities have been tracked for 100 miles.

Localized smog composed of indeterminate pollutants has been observed over the Prudhoe Bay field. According to agency personnel, the smog is distinct from "arctic haze" that occurs at higher elevations throughout the Arctic.

Impacts

Most air pollutants measured on North Slope do not exceed National Ambient Air Quality Standards (NAAQS), but arctic species are known to be more sensitive to air pollutants than mid-latitude species used to establish those standards.

The EPA has raised concerns that acidification of tundra may result even if ambient air quality standards are being met. Acidification of the tundra is an increasing concern, with recent measurements of nitrogen oxides and sulfur dioxide – the most important precursors of acid deposi-

tion – showing a jump of as much as three- to ten-fold in some areas compared to levels observed during 1979 and 1980.

Lichens, an important food source for caribou, are especially sensitive to acidifying pollutants, particularly sulfur dioxide. Negative effects occur at low levels and short-term exposures. Maximum measured one-hour sulfur dioxide levels on the North Slope have exceeded by more than 4 times the level known to negatively affect lichens. The U.S. Fish and Wildlife Service has voiced concern over the short and long-term impacts of sulfur dioxide on the ecological system of the North Slope.

Recent monitoring revealed exceedences of National Ambient Air Quality Standards for total suspended particulates. Dust from gravel roads and pads is an important source of these particulates. Disposal of reserve pit wastewater on roads can lead to dust that is high in barium, chromium, lead and possibly other metals. Road dust is far more predominant than natural source dust during the summer months and provides a pathway for these contaminants to the tundra, where they may adversely affect plants, invertebrates and ultimately birds and grazing animals.

Regulatory Problems

The concerns expressed by EPA and the U.S. Fish and Wildlife Service regarding acidification of the tundra and consequent impacts on tundra species of plants and animals raise serious questions about whether existing air pollution standards are sufficient to protect the North Slope environment, particularly over the long term.

Regulatory "prevention of significant deterioration" increments have never been established for oxides of nitrogen, which are emitted in large amounts on the North Slope. These increments are designed to ensure that emissions of specific pollutants do not cause air quality to degrade unacceptably.

Monitoring of air quality at Prudhoe Bay has been extremely limited. No comprehensive ambient air monitoring took place from 1981-1986. Not all pollutants of concern were measured at all sites during 1986-1987, and there is no monitoring at all for acid deposition at Prudhoe Bay. In addition, monitors may not have been located in optimum locations for measuring ozone.

Compliance

Hundreds of violations of state air quality regulations governing black smoke emissions are documented in ADEC's files. During the startup of ARCO's Lisburne Facility, black smoke was emitted in violation of state standards almost continuously for more than a month. Had ARCO installed available "smokeless" flares, the majority of the emissions could have met state standards, according to ADEC. Violations of permit standards for carbon monoxide, particulates and other permit conditions also have occurred.

Hazardous and Other Wastes

Oil and gas exploration, development and production generate enormous amounts of solid and liquid wastes, some of which have caused serious contamination problems on the North Slope.

Sources

Liquid wastes generated by the oil and gas industry on the North Slope include diesel, crude oil, arctic-pack (a diesel-based lubricant), lube oil, trichloroethylene, biocides, battery acid, solvents, barrel drainings, brine, fracturing gel, glycol, methanol, slop oil, drilling mud, reserve pit fluids, produced water, antifoam agents, paint carboline, ammonium bi-sulfate, emulsion breakers, hydraulic fluid, paint thinner, heat exchanger bundle sludge, xylene, methyl alcohol, tank bottoms, and other wastes. Many of these pose hazards to human health and the environment.

Solid wastes generated by oil industry operations include styrofoam pipeline insulation, tires, wrecked vehicles and airplanes, used batteries, prefabricated buildings, scrap construction materials,

large quantities of scrap metal and more than 10,000 used drums per year. The Trans-Alaska Pipeline construction project generated more than 500 destroyed vehicles, 3,000 batteries, 10,000 tires, 20,000 tons of scrap construction materials, 6,000 tons of equipment components, thousands of used drums, thousands of cubic yards of various camp-related wastes, hundreds of prefabricated buildings and large quantities of unused pipe.

Impacts

Serious contamination already has occurred on the North Slope due to improper hazardous waste management. More than 58,000 gallons of liquids including xylene, benzene, toluene, acids, phenol and other chemicals were recovered in a cleanup of thousands of drums at North Slope Salvage, Inc. The site was found to pose "a serious and unacceptable" environmental and human health hazard. Among other sites under investigation is Child's Pad in Deadhorse, where ADEC discovered 500 drums, some leaking, containing unidentified oily wastes.

Another concern are the landfills used in the 1960s, 1970s and 1980s to dispose of drilling muds, additives, solvents, bactericides, herbicides, fungicides, sewage, vehicles, airplanes, incinerator ash, helicopters, pipes, engines and other wastes. A complete inventory of wastes is unavailable, but five landfills have been the subjects of Superfund preliminary assessments, and at least four of these have been recommended for further review.

Just as there is no inventory of landfill wastes, there has been no comprehensive study of the fate of the 20 billion gallons of industrial wastes and produced water that have been injected underground on the North Slope. Underground waste injection has caused serious pollution problems elsewhere.

Regulatory Problems

Exemptions under the 1980 amendments to the Resource Conservation and Recovery Act (RCRA) allow the oil industry to bypass otherwise applicable hazardous waste management requirements for certain wastes. For example, the oil industry commonly uses the solvent methanol, and under normal circumstances, RCRA requires special handling for methanol wastes. But if such wastes are generated during certain oil and gas operations, EPA allows them to be handled as conventional liquid waste.

In 1985, the EPA began a study to determine whether oil and gas exploration, development and production wastes should be regulated as hazardous. The study was begun only after Trustees for Alaska, on behalf of the Alaska Center for the Environment, filed suit against EPA for failing to complete the study before the 1982 statutory deadline. Drafts of EPA's study reveal that these wastes have caused serious contamination problems around the country, including Alaska.

Compliance

North Slope Salvage, Inc., the subject of the largest hazardous waste compliance action so far on the North Slope, was found guilty of eight criminal counts related to its improper handling of hazardous wastes. Recently, ADEC discovered 500 drums containing unidentified petroleum liquids on a pad leased by Child's Equipment Services in Deadhorse. Hazardous waste compliance problems include 11 violations revealed out of 29 EPA and ADEC inspections. Other waste disposal violations include the closure of oily waste pits due to leaking and overtopping.

Land and Habitat Impacts

Sources

Alteration and, in some cases, absolute elimination of substantial amounts of fish and wildlife habitat have resulted from oil extraction activities on the North Slope.

More than 60 million cubic yards of gravel have been used to construct over 300 miles of roads and hundreds of gravel pads, which support housing and production facilities. Together with gravel

mine sites, these roads and pads cover more than 9,400 acres on the North Slope.

In wetlands, gravel roads and pads often act as dams, creating artificial lakes and ponds. Some 3,400 acres of habitat have been flooded in the Prudhoe Bay unit alone. Habitat has also been eliminated by washed-out gravel and fugitive dust from roads and pads.

In addition, sensitive species may be forced to abandon some areas due to air and ground traffic. Thus, the total area disturbed by oil field development is not limited to areas flooded or covered by gravel.

Impacts

In addressing the amount of habitat affected by oil development, the oil industry often counts only acreage directly covered by roads, pads and other facilities. Yet oil fields sprawl over large areas, with scattered facilities connected by roads, pipelines and transmission lines. (See Map C). Some birds and certain segments of the caribou population, notably cows with calves, tend to avoid roads and other facilities; thus the amount of habitat disturbed by oil development is much larger than the area actually covered by facilities. In the case of caribou, an Alaska Department of Fish and Game researcher concluded:

> [e]ven if the amount of direct habitat loss (i.e., vegetation covered by gravel) were an order of magnitude larger, it would be of minor significance when compared with the amount of habitat that would become unavailable because caribou avoid developments (Shideler, 1986).

Regulatory Problems

Rehabilitation of developed sites is confined to small areas in the Prudhoe Bay region even though several state and federal permits and leases provide for restoration. No large-scale, long-term rehabilitation has been attempted, much less demonstrated as effective. There is no evidence that experimental restoration methods will be economically feasible to apply over large areas or will withstand the rigors of multiple arctic winters. The Corps of Engineers (COE) commented:

> [i]n light of industry's reluctance to develop and use compensatory mitigation/restoration techniques, none has been applied to the North Slope of Alaska, except to a very limited experimental extent. The technology has not been developed (COE, 1987).

EPA recently concurred:

> EPA's own extensive experience with the major operators at Prudhoe Bay supports [the Corps'] conclusions; rehabilitation technology for the North Slope is particularly lacking (EPA, 1987(b)).

The Department of the Interior has also reported that successful rehabilitation techniques have not yet been developed for areas north of the Brooks Range (DOI, 1987).

Moreover, industry predicts astronomically high costs for restoration, and there is no assurance that adequate monies have been set aside. The Alaska Oil and Gas Association claims that removal of exploratory drilling facilities and site rehabilitation will cost up to twice as much as the original construction. Chevron estimates a $2.6 million cost to remove facilities, re-vegetate land and monitor its exploratory well and reserve pit on Kaktovik Inupiat Corporation lands within the Arctic National Wildlife Refuge. There are hundreds of reserve pits, hundreds of miles of roads and thousands of acres of gravel pads and open mine sites likely to require restoration on the North Slope. Yet the State only requires lessees to post maximum bonds of $500,000 statewide.

The North Slope will remain scarred without a massive infusion of funds for research, development and implementation of restoration technology.

Compliance

Blockage of fish passage due to construction or deposition of material in streams, habitat destruction caused by illegal gravel deposition, and failure to restore sites as required are among the compliance problems documented in state and federal agency records.

Data Gaps

Discussion of documented environmental problems resulting from oil development on the North Slope does not reveal the entire potential for environmental degradation. Enormous gaps exist in information about amounts and types of pollutants introduced on the North Slope and the effects these pollutants and other oil development activities have on the region's biological system. The more critical data gaps are:

Water Pollution

- Transport and fate of pollutants in reserve pit fluids discharged to roads and the extent to which roadwatering discharges meet state permit limits.
- Long term effects on aquatic systems of reserve pit discharges.
- Effects on North Slope bird populations of declines in and contamination of invertebrate food species in tundra ponds affected by reserve pit discharges.
- Volumes, rates, concentrations and impacts from leaking reserve pits.
- Cumulative impacts of spills, wastewater and reserve pit discharges on tundra ponds and wetlands.

Air Pollution

- Effects of nitrogen oxides, sulfur dioxide and other acidifying air pollutants on arctic vegetation.
- The adequacy of National Ambient Air Quality Standards in protecting sensitive arctic species.
- The extent of man-caused ozone formation on the North Slope and damage thresholds for ozone injury to tundra species.
- The nature and quantity of non-particulate air contaminants released as a result of black smoke emissions.
- The nature of air pollutants emitted by drum incineration.
- Composition and specific sources of local smog over the Prudhoe Bay region.
- Nature and toxicity of solid waste incinerator emissions.

Hazardous and Other Waste

- The fate of 20 billion gallons of industrial and exempt waste that has been injected on the North Slope.
- Nature and toxicity of wastes which were dumped at landfills in the Prudhoe Bay area.
- Proven methods of safely landfilling solid waste in permafrost.
- A precise accounting and fate of hazardous and exempt waste streams on the North Slope.

Land and Habitat Impacts

* Technical and economical feasibility of long-term restoration of large industrialized areas.
* The degree of displacement of birds and other species from industrialized areas.
* The fate of species forced to abandon industrialized areas.

Other data gaps regarding the nature and extent of environmental impacts caused by oil development on the North Slope are discussed in following chapters.

SIERRA CLUB

408 C Street N.E., Washington, D.C. 20002 (202) 547-1141

TESTIMONY OF MICHAEL FISCHER
EXECUTIVE DIRECTOR, SIERRA CLUB
CONCERNING THE OIL SPILL IN PRINCE WILLIAM SOUND

BEFORE THE
SENATE SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

April 19, 1989

Mr. Chairman, members of the Subcommittee, I am Michael Fischer, Executive Director of Sierra Club, an environmental organization of 500,000 members.

Our members, like all other Americans, have been horrified and awestruck by the magnitude of the Prince William Sound disaster. We are heartsick at the sights and sounds of the death. And we are furious that it takes this tragedy to drive home to American decisionmakers that oil development and wilderness cannot coexist. Our nation must choose whether or not to develop and despoil our remaining wild places. Reassuring words from industry and its political allies do not make environmental protection. No matter how good a job could be done on the cleanup of Prince William Sound, it will not ever be the same as it was before March 24, 1989. And no matter how good a job is done investigating this disaster, it will not be the last spill, the last accident, the last disaster. This giant industrial system of production and transport reaches from the Arctic Ocean to the Panama Canal. It cannot be made fail safe.

Nonprofit conservation organizations like Sierra Club have been swept into controversy over spill cleanup because our members and the general public demand it.

In all Sierra Club offices, especially San Francisco, Seattle, Anchorage and Washington, D.C., people call to volunteer, to vent their anger, sometimes to demand that we step in where Exxon and the federal government have failed.

In Anchorage, local groups installed a special telephone line with a brand new phone answering machine. It burned itself out from the constant calling in one day. Next, we tried three lines staffed by volunteers. There have been more than 1200 calls into this small office. We have helped look for specialists, such as those with veterinary experience or boat owners, and taken down other names and numbers in case general volunteer help will be permitted and can be coordinated.

Most inspiring are the volunteers who staff the phones. Many haven't been active conservationists before. They may have worked in offices in downtown Anchorage. There is a feeling of helplessness they are trying to overcome by volunteering to answer phones. Many of the callers just want to grieve or rage. The volunteers are often in tears or on the verge of tears as they engage in a special therapy for the callers and themselves.

Mr. Chairman, my professional background is in coastal zone planning and management. I was formerly Executive Director of the California Coastal Commission. We have had experience with the Santa Barbara spill, with Alaskan tanker traffic entering San Francisco Bay and the Port of Long Beach, with Interior's plans for offshore oil development.

We know from Santa Barbara that sandy beach ecosystems are the easiest to clean. But they are less diverse, less productive than wetlands or rocky shores, which are the hardest to clean. These are the shorelines of Alaska.

We knew long ago of the cozy relationship between the oil industry and the Coast Guard, where drills were announced in advance, for example. When California instituted surprise inspections and drills, we witnessed the same uncoordination and ineptitude that are known now to all Americans from Alaska.

One time, I was invited to a spill cleanup demonstration at Long Beach. The contractor ferried us out into the harbor and released wheat chaff to represent spilled oil. On a sunny, calm afternoon, we watched the containment team botch the exercise repeatedly, until three hours later, the wheat chaff escaped. Hilarious--so long as it is wheat chaff.

What I have come to know is that "state of the art" contingency plans and equipment are a public relations myth. In Alaska it wasn't just a case of not enough people, not enough equipment, not enough implementation. The equipment doesn't work. The technology doesn't exist.

Mr. Chairman, what happened to Prince William Sound is a tragedy. We hear that word again and again. But there could be a bigger tragedy in store for America and the world. That will occur if we do not learn more from this

spill than just to issue drug tests to mariners. If we cannot learn to protect our most environmentally sensitive areas from oil industrialization, then we inexorably destroy our wilderness, our unspoiled waters, again and again and again.

President Bush has said that he sees "no connection" between the Valdez disaster and his proposal to lease the Arctic National Wildlife Refuge; yet the two are inextricably linked by pollution, politics, and policy.

The spotlight on Exxon must not blind us to Alyeska's failures in initial response and containment of the oil spill. BP America and ARCO-Alaska Inc., the two major operators of the Prudhoe Bay oil fields and companies who have most adamantly lobbied for opening up the Arctic National Wildlife Refuge, join Exxon in owning 91% interest in the Alyeska Pipeline Service Company. The true ability and willingness of the oil industry to prevent contamination and destruction of the environment was revealed by the spill, but pervades the industry's entire operations throughout the TAPS system.

This was not the first major spill in Valdez this year; it was the third. Chronic discharges from Alyeska's Valdez terminal have caused lack of compliance with Alaska state water quality standards 80% of the time. There have been tens of thousands of spills on the North Slope, ranging in size from a few gallons to more than 100,000 gallons. Some have been cleaned up. Some have not. We believe that many more have gone unreported.

Let me list examples from the Prudhoe-TAPS-Valdez system:

TAPS Pipeline Spills

Numerous large spills of North Slope crude oil from Alyeska's TAPS have already happened. Human error was also involved in most of these spills. The leak detection systems which industry claimed would prevent large spills did not function as intended, and the response time to spills has characteristically been slow.

*1974-1977 - A total of 16,000 oil spills, totaling at least 700,000 gallons, occurred along TAPS during construction and initial operation. Most of these spills were of refined petroleum products. At least five of these spills were considered to be major. Major spills occurred at many construction camps, often from faulty fuel lines which continued undetected for long periods with an unknown spill volume and unknown magnitude of contamination of aquatic resources. Two of these spills were greater than 100,000 gallons.

-July 4, 1977 - TAPS was shut down due to cracks in the pipe near a Pump Station near Fairbanks.

-July 8, 1977 - Human error caused a fire and explosion at Pump Station 8 about 40 miles south of Fairbanks, killing one worker and injuring 5.

-July 19, 1977 - 80,000 gallons of crude oil sprayed a long distance into the air and covered the tundra when a construction truck ruptured pipeline valve 7 near Franklin Bluffs. In addition to the area directly affected by the spill, the cleanup effort itself also caused major impacts.

-July, 1977 - Explosions set by saboteurs damaged 60 feet of pipeline supports.

-February 15, 1978 - 500,000-630,000 gallons crude oil spilled from hole in TAPS due to saboteur's explosives.

-June 1979 - 82,000 gallon oil spill from a break in the TAPS at Atigun Pass was undetected for a long period. This spill reached the Atigun River, despite containment dikes erected at its headwaters, and extended 15-25 miles downstream, killing riparian vegetation, oiling birds and killing aquatic invertebrates.

-August 1987 - 223 feet of pipeline replaced at Atigun Pass due to sagging because of ice thawing.

Prudhoe Bay Oilfields spills

-1985-1986 - For these years alone, the Alaska Department of Environmental Conservation records showed 953 oil spills in the Prudhoe Bay oilfield and TAPS corridor, including 66 spills of more than 500 gallons and 22 spills of more than 1000 gallons.

-1983-1986 - Hundreds of violations of permit standards for seawater treatment and domestic wastewater discharges.

-April, 1988 - 9 leaks in oilfield flowlines were caused by corrosion and resulted in replacement of more than 10,000 feet of pipeline. This raised concern that many other pipelines might need replacing.

According to an EPA report, now disavowed by the Bush Administration, there are serious problems with the handling, treatment and disposal of hazardous and non-hazardous waste by the oil and gas industry operating on Alaska's North Slope. The EPA presented evidence of significant and widespread violations of state and federal hazardous and solid waste management laws. The January 1989 report ("Management of Oil and Gas Wastes on Alaska's North Slope") was the third and final draft document prepared by EPA regarding waste management practices on the North Slope. Unfortunately, the EPA issued a "stop work order" for this report, as well as for all planned further study of oil and gas industry waste management practices throughout the nation.

According to a Fish and Wildlife Service report ("Comparison of Actual and Predicted Impacts of the Trans-Alaska Pipeline System and Prudhoe Bay Oilfields on the North Slope of Alaska") buried by the Reagan Administration, TAPS oil spill frequencies were not predicted, their size was underestimated, and their anticipated source was limited to pipeline leaks. Actual impacts occurred from numerous sources, including undetected leaks in buried fuel lines at construction camps and spills from fuel truck accidents. While numerous oil spills from TAPS contaminated lakes, rivers and wetlands, the actual water quality and biological impacts from these spills were not adequately assessed. Limited post-construction studies showed long-term reductions in productivity and taxonomic diversity in some streams adjacent to

the pipeline and Haul Road, although no studies were conducted during construction when impacts were most severe.

Oil spills in the Prudhoe Bay oil fields were more frequent than expected. And other major sources of contamination throughout the oilfield, such as discharges or leaks of heavy metals and hydrocarbons from reserve pits to tundra ponds and wetlands, pollution from seawater treatment plant chemicals, and spills of hazardous materials were not predicted. Contamination problems persist in the oilfields and their potential effects to the onshore wetlands, and coastal ecosystem of the Arctic Refuge have thus far been inadequately addressed.

Does President Bush think that oil is not shipped over water in the Arctic Ocean, that the coastal plain is not largely wetland laced with braided rivers leading to lagoons? Does he not know that the well sites, pipelines and transport systems of the North Slope also have contingency plans? Only because the oil is at the beginning of the pipe instead of the end, the oil companies have calculated that accidents are less likely and will be less extensive. Therefore, they have calculated, they need less equipment, fewer men, fewer precautions, fewer safeguards.

I have here a contingency plan for the Beaufort Sea. The concepts and technology presented by industry in this plan are no different than in the plan for Valdez. The Beaufort Sea plan claims "It is Exxon's policy to use proven technology and operating practices so that petroleum exploration and development occur in harmony with the environment." But the technology and practices for the Beaufort Sea are as unproven and untested as in Valdez, where industry miserably failed the test. The logistics of dealing with spilled oil in the ice-infested waters of the remote Beaufort Sea would be extremely difficult, and could make the effort in Valdez seem easy. This plan calls for just 1000 feet of containment boom and one skimmer to be on-site. The plan is based on the major assumption that oil would remain on top of the ice, but also says that oil could flow through cracks in the ice. Drawings show how oil would be removed from under the ice, but this has never been attempted. Skimmer boats in Deadhorse, hundreds of miles from many drill sites, are in the water less than 1-2 months of the year.

This plan states that:

"the probability of a major oil spill (1000 barrels or more) occurring as a result of Exxon's proposed exploratory drilling activity is extremely remote...It is also important to note that the probability of a blowout occurring is very low since only 25 blowouts occurred out of 3594 exploration wells drilled from 1971 to 1982...Using the above historic U.S. OCS data, we would expect the chance of a major spill occurring as a result of exploration drilling to be extremely close to zero."

What the plan does not explain is that OCS drilling in Alaska has only a short history, and that development of the OCS would further increase the risks. They do include a hypothetical scenario of a well blowout which would release 58,000 barrels (2.4 million gallons) of oil in January, with cleanup continuing through breakup (June or July). However, a blowout at the Ranger exploratory well in Texas spilled 6.3 million gallons of oil in 1985, and the IXTOC I spewed 140 million gallons into the Gulf of Mexico in 1979-80. While the probability may be considered low, the potential for catastrophic impacts could be even greater with a well blowout than with a tanker accident, considering the huge amount of oil potentially involved, the length of time it could take to drill a relief well or to cap the well if possible, and the lack of ability to contain or cleanup the oil. In August 1988, it took the Coast Guard two days to reach an area along the northwestern coast of the Arctic Refuge where 68,000 gallons of diesel spilled from a barge hull punctured by chunks of ice.

Major oil spills from offshore drilling operations could have devastating effects on coastal habitats which are an integral part of the Arctic Refuge ecosystem. Endangered bowhead whales migrate through the marine waters, an international anadromous fish population uses the nearshore waters, tens of thousands of molting waterfowl gather in the lagoons and staging shorebirds feed along the shorelines.

But it doesn't take a disaster to destroy wilderness. The hundreds of miles of pipelines, roads, docks, causeways, airstrips, the thousands of personnel, the constant roar of trucks, snowcuts, planes, and the drilling equipment itself destroy the wilderness even if it is carried on with immaculate care.

Let me close by getting philosophical. I've had the privilege of seeing, walking, feeling the Arctic Refuge. Few have. Few will. But that's not the point. All of us should treasure it as something which basically belongs to you, belongs to us, and belongs to future generations. Future generations of the many species which live there.

When confronted with death, with destruction, it is common to feel grief, to mourn. We all mourn for Prince William Sound and the life that is no more. And it is also common to feel anger. Anger over broken promises. Anger over lies. Anger over greed, arrogance, ineptitude. Anger that so few can destroy so much. Anger can be constructive, but only if we use its energy to undertake constructive tasks. Let us apply ourselves to protect our wild places, our last wild places, from ever being victims of another disaster. It will be good for all of us.

TESTIMONY OF

B. KENT BURTON
ASSISTANT SECRETARY FOR OCEANS AND ATMOSPHERE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

APRIL 19, 1989

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

EARLY IN THE MORNING OF MARCH 24, 1989, THE TANKER EXXON VALDEZ, CARRYING APPROXIMATELY 60 MILLION GALLONS OF NORTH SLOPE CRUDE OIL FROM THE VALDEZ TERMINAL OF THE TRANS-ALASKA PIPELINE, RAN AGROUND ON BLIGH REEF SHORTLY AFTER ENTERING PRINCE WILLIAM SOUND. THE TANKER SPILLED AN ESTIMATED 10.5 MILLION GALLONS OF OIL INTO THE SOUND. BY APRIL 16, OIL HAD SPREAD THROUGHOUT AN AREA OF MORE THAN 800 SQUARE MILES, APPROXIMATELY ONE-THIRD OF THE TOTAL SURFACE WATERS OF PRINCE WILLIAM SOUND. THE ROCKY SHORES OF NAKED, KNIGHT, SMITH AND GREEN ISLANDS HAVE BEEN HEAVILY OILED. PREVAILING CURRENTS AND WINDS MOVED ABOUT A THIRD OF THE OIL IN A SOUTHWESTERLY DIRECTION THROUGH MONTAGUE STRAIT AND INTO THE OPEN WATERS OF THE GULF OF ALASKA. THIS OIL HAS FOLLOWED THE COASTLINE OF THE KENAI PENINSULA, PAST BIOLOGICALLY PRODUCTIVE AND SCENIC AREAS SUCH AS BLYING SOUND, RESURRECTION BAY, AND THE KENAI FJORDS NATIONAL PARK. LIGHT OILING OF SOME OF THE HEADLANDS ALONG THIS COASTLINE HAS OCCURRED. SOME OIL, IN THE FORM OF THIN SHEENS AND TARBALLS, COULD ENTER THE SOUTHERN PART OF COOK INLET.

PRINCE WILLIAM SOUND, LOCATED ON THE SOUTH-CENTRAL PART OF THE ALASKAN COAST, IS A REMOTE, PRISTINE FJORD/ESTUARY-TYPE ECOSYSTEM CONTAINING IMPORTANT NATURAL RESOURCES. TWENTY-THREE SPECIES OF MARINE MAMMALS, INCLUDING AT LEAST FIVE SPECIES THAT ARE THREATENED OR ENDANGERED, FREQUENT THE AREA DURING SOME TIME OF THE YEAR. THE SOUND IS ONE OF THE LARGEST, UNDEVELOPED MARINE ECOSYSTEMS IN THE UNITED STATES. THE SURROUNDING COASTS ARE INHABITED ONLY BY ABOUT 6,000 PEOPLE IN SCATTERED TOWNS, VILLAGES, AND HAMLETS.

THE ECONOMY OF THE AREA IS BASED ON THE USE OF ITS NATURAL RESOURCES AND INCLUDES (1) COMMERCIAL FISHING -- PRINCE WILLIAM SOUND SUPPORTS MAJOR COMMERCIAL FISHERIES FOR SALMON AND HERRING, AND SMALLER FISHERIES FOR KING, TANNER AND DUNGENESS CRAB,

SHRIMP, SABLEFISH, AND HALIBUT. THESE COMMERCIAL FISHERIES ARE RENEWABLE RESOURCES THAT EACH YEAR PRODUCE MORE THAN $100 MILLION IN INCOME TO FISHERMEN AND PROCESSORS; (2) RECREATION -- THE RELATIVE ACCESSIBILITY OF PRINCE WILLIAM SOUND TO ANCHORAGE, THE MAJOR POPULATION CENTER IN ALASKA, MAKES IT A FAVORITE OF LOCAL AND VISITING RECREATION SEEKERS WHO USE IT, EITHER INDIVIDUALLY OR IN ORGANIZED TOURS, FOR FISHING, SIGHT-SEEING, KAYAKING, AND CAMPING; (3) SUBSISTENCE FISHING AND HUNTING; (4) LOGGING -- FROM NATIONAL FOREST LANDS AROUND PRINCE WILLIAM SOUND; (5) OIL TRANSPORTATION: -- PORT VALDEZ, LOCATED IN THE NORTHEASTERN PORTION OF PRINCE WILLIAM SOUND, INCLUDES THE SOUTHERN TERMINUS OF THE TRANS-ALASKA PIPELINE.

THE DEVASTATING ASPECTS OF THE SPILL WILL BECOME MORE EVIDENT AS THE HARSH ALASKAN WINTER TURNS TO SPRING. THE ENVIRONMENTALLY AND ECONOMICALLY VALUABLE RESOURCES OF PRINCE WILLIAM SOUND ARE AT RISK. FOR EXAMPLE, MIGRATING HERRING ARE NOW IN THE SOUND, WHERE THEY SPAWN AND ARE AVAILABLE FOR HARVEST. THE SPILL OCCURRED JUST DAYS BEFORE THE SCHEDULED OPENING OF THIS FISHERY, WHICH HAS BEEN CANCELLED. THIS MEANS NOT ONLY LOST JOBS AND INCOME TO RESIDENT FISHERMEN, BUT ALSO LOST EXPORTS TO THE UNITED STATES.

EVEN MORE VALUABLE THAN HERRING IS THE SALMON FISHERY IN PRINCE WILLIAM SOUND. ALL FIVE SPECIES OF PACIFIC SALMON ARE SUPPORTED BY PRINCE WILLIAM SOUND AND ITS RIVER SYSTEMS. ADULT FISH COULD BE AFFECTED WHEN THEY RETURN TO THE SOUND THIS SPRING AND SUMMER. JUVENILE SALMON ARE NOW READY TO ENTER SOME OF THE WATERS OF THE SOUND THAT HAVE BEEN DAMAGED BY THE SPILL. THEY MAY, THEREFORE, BEGIN TO FEED ON ORGANISMS THAT HAVE BEEN DAMAGED. THIS IS THE TIME OF THEIR LIFE CYCLE THAT THEY ARE MOST DEPENDENT ON THE NEARSHORE ENVIRONMENT AFFECTED BY THE SPILL, AND THERE IS A GOOD CHANCE THAT MANY OF THESE FISH WILL NOT SURVIVE. THE EFFECTS COULD BE SEEN YEARS DOWN THE ROAD WHEN THESE FISH ARE NOT AVAILABLE AS ADULTS FOR SPAWNING. THE LOSS COULD LIKELY EXTEND FAR INTO THE FUTURE.

THE EFFECTS ON OUR NATURAL RESOURCES FORM THE BASIS FOR THE DAMAGE ASSESSMENT WORK THAT WILL BE UNDERTAKEN BY THE CO-TRUSTEES. IN THIS CASE, THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) ACTS ON BEHALF OF THE SECRETARY OF COMMERCE AS A FEDERAL TRUSTEE FOR NATURAL RESOURCES IN COASTAL AND MARINE AREAS. THE SECRETARY OF THE INTERIOR, THE SECRETARY OF AGRICULTURE AND, SINCE THIS INCIDENT OCCURRED IN STATE WATERS, THE STATE OF ALASKA, ALSO HAVE SIGNIFICANT TRUSTEE INTERESTS.

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NOAA'S DAMAGE ASSESSMENT AUTHORITY IS DERIVED FROM THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT AND THE CLEAN WATER ACT, AS WELL AS OTHER RESOURCE MANAGEMENT STATUTES THAT PROVIDE THE LEGAL AND PROCEDURAL FRAMEWORK FOR CLAIMS AGAINST POTENTIALLY RESPONSIBLE PARTIES (PRP) FOR LOSSES RESULTING FROM INJURY TO NATURAL RESOURCES CAUSED BY OIL SPILLS.

BASED ON THESE AUTHORITIES, NOAA HAS FOUR PRINCIPAL RESPONSIBILITIES DURING AND AFTER AN OIL SPILL:

(1) AS THE SCIENTIFIC SUPPORT COORDINATOR (SSC) TO THE U.S. COAST GUARD ON-SCENE COORDINATOR (OSC). SPECIFICALLY, THE NOAA SSC:

A) PROVIDES LIAISON BETWEEN NATURAL RESOURCE, CHEMICAL, MEDICAL AND OTHER SCIENTIFIC EXPERTS AND THE OSC;

B) OBSERVES AND MODELS TRAJECTORIES OF SPILLED OIL TO PREDICT ITS FUTURE MOVEMENTS;

C) ASSESSES THE NATURE, BEHAVIOR, AND FATE OF THE OIL, E.G., CHEMICAL SAMPLING AND ANALYSIS, IDENTIFICATION OF TOXIC PROPERTIES, AND ALTERATION OF PHYSICAL AND CHEMICAL CHARACTERISTICS UNDER VARIOUS ENVIRONMENTAL CONDITIONS;

D) ADVISES ON SAFETY PRECAUTIONS FOR RESPONSE PERSONNEL;

E) IDENTIFIES AREAS OF BIOLOGICAL IMPORTANCE REQUIRING SPECIAL ATTENTION AND PROTECTION;

F) HELPS THE OSC RESPOND TO INQUIRIES FROM LOCAL, STATE AND FEDERAL AGENCIES FOR ASSISTANCE IN PLANNING AND CONDUCTING SCIENTIFIC STUDIES AND ENVIRONMENTAL ASSESSMENTS; AND

G) ASSISTS THE OSC'S PUBLIC INFORMATION EFFORTS ON SCIENTIFIC ISSUES.

(2) AS A MEMBER OF THE REGIONAL RESPONSE TEAM, NOAA ASSISTS IN FORMULATING FEDERAL RECOMMENDATIONS TO THE ON-SCENE COORDINATOR;

(3) AS A FEDERAL TRUSTEE FOR MARINE RESOURCES, NOAA, ALONG WITH OTHER FEDERAL AGENCIES, IDENTIFIES INJURIES TO RESOURCES, ASSESSES LOSSES ASSOCIATED WITH INJURY TO NATURAL RESOURCES, AND BRINGS CLAIMS AGAINST RESPONSIBLE PARTIES; AND

(4) AS THE NATION'S PRINCIPAL MARINE POLLUTION RESEARCH AND MONITORING AGENCY, NOAA HAS A SIGNIFICANT ROLE IN EXAMINING THE LONG-TERM ECOLOGICAL CONSEQUENCES OF THE SPILL.

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NOAA EXPERTS WERE ON SITE AT THE EXXON VALDEZ SPILL WITHIN HOURS. WITHIN A DAY NOAA'S ON-SITE PERSONNEL INCLUDED PEOPLE FROM NOAA'S HAZARDOUS MATERIALS RESPONSE TEAM, THE NATIONAL MARINE MAMMAL LABORATORY, THE NATIONAL MARINE FISHERIES SERVICE AUKE BAY LABORATORY, THE ALASKA REGIONAL OFFICE, THE OFFICE OF AIRCRAFT OPERATIONS, AND THE NATIONAL WEATHER SERVICE. TO IMPLEMENT ITS SCIENTIFIC SUPPORT RESPONSIBILITIES, NOAA'S HAZARDOUS MATERIALS RESPONSE TEAM HAS CONDUCTED EXTENSIVE OVERFLIGHTS OF THE SPREADING OIL AND COASTAL REACHES OF PRINCE WILLIAM SOUND TO MONITOR SLICK MOVEMENT AND IDENTIFY THREATENED AREAS. NOAA'S HAZARDOUS MATERIALS RESPONSE TEAM PROBABLY HAS MORE COLLECTIVE SCIENTIFIC EXPERIENCE WITH MARINE OIL SPILLS THAN ANY GROUP IN THE WORLD. SOME TEAM MEMBERS HAVE BEEN INVOLVED WITH EVERY MAJOR OIL SPILL THAT HAS OCCURRED IN THE LAST 13 YEARS, INCLUDING THE ARGO MERCHANT, THE AMOCO CADIZ, AND THE IXTOC OIL WELL BLOWOUT.

NOAA TRAJECTORY MODELS ARE AN IMPORTANT TOOL IN SPILL RESPONSE. THESE COMPUTERIZED FORECASTS ARE UPDATED CONTINUOUSLY TO PROJECT OIL MOVEMENT TO IDENTIFY AFFECTED AREAS AND TO EFFECTIVELY DEPLOY CLEANUP EQUIPMENT AND CONTAINMENT BOOMS. SPECIAL ANALYSIS AND FORECASTS OF WIND AND WEATHER CONDITIONS ARE PREPARED TO SUPPORT ON-SCENE OPERATIONS. WE HAVE INSTALLED AUTOMATED WEATHER STATIONS, PROVIDED BY THE DEPARTMENT OF THE INTERIOR, ON SEVERAL ISLANDS IN THE PATH OF THE SPREADING OIL TO OBTAIN ACCURATE WIND DATA FOR TRAJECTORY ANALYSIS. AS OF THIS PAST WEEKEND, THE NOAA SHIP RAINIER WAS DIVERTED TO THE KODIAK ISLAND AREA TO SUPPORT THE COAST GUARD AND A SOVIET OIL SKIMMER THAT WILL ATTEMPT TO COLLECT OIL AT THE LEADING EDGE OF THE SPILL.

NOAA AND STATE OF ALASKA SCIENTISTS HAVE BEEN TAKING WATER AND BIOLOGICAL SAMPLES AHEAD OF THE SPILL TO ESTABLISH BENCHMARKS. WE ARE ALSO, OF COURSE, SAMPLING AFFECTED AREAS. BIOLOGISTS ARE CLOSELY FOLLOWING EFFECTS ON FISH STOCKS, BIRDS, MARINE MAMMALS, AND EXTENSIVE, VERY IMPORTANT HABITATS THAT COMPRISE PRINCE WILLIAM SOUND, THE GULF OF ALASKA, AND COOK INLET.

A FINAL, OFFICIAL ASSESSMENT OF THE IMPACT OF THE OIL SPILL ON PRINCE WILLIAM SOUND HAS NOT BEEN COMPLETED. CLEARLY, HOWEVER, THERE HAS BEEN A SIGNIFICANT IMPACT WHICH MAY GROW WORSE. THE ECOLOGY OF PRINCE WILLIAM SOUND IS SENSITIVE TO AN OIL SPILL OF THE MAGNITUDE OF THE EXXON VALDEZ. THE INNUMERABLE ROCKY INLETS AND COVES ARE TRAPS WHERE THE WEATHERING CRUDE OIL IS COLLECTING AND BEING DEPOSITED ON THE BEACH. GRAVEL BEACHES ARE PARTICULARLY VULNERABLE TO FOULING. THE PROTECTED NATURE OF PRINCE WILLIAM SOUND CREATES AN ENVIRONMENT WITH LIMITED WAVE ACTION TO BREAKUP AND DISPERSE THE OIL. SUBARCTIC TEMPERATURES SLOW THE WEATHERING PROCESS OF THE CRUDE OIL, THEREBY SLOWING THE

RELEASE OF THE MORE TOXIC COMPONENTS AND RETARDING OVERALL DEGRADATION BY NORMAL CHEMICAL AND BIOLOGICAL PROCESSES. BECAUSE OF THESE FACTORS, MEASURABLE EFFECTS OF THE EXXON VALDEZ MAY BE WITH US FOR QUITE AWHILE.

LAST WEEK, THE UNDER SECRETARY FOR OCEANS AND ATMOSPHERE, DR. EVANS, VISITED THE PRINCE WILLIAM SOUND AREA TO OBSERVE FIRST-HAND THE EXTENT AND EFFECTS OF THE OIL SPILL. DURING HIS VISIT HE DISCUSSED THE SIGNING OF A MEMORANDUM OF AGREEMENT INITIATED BY NOAA, AMONG EXXON AND THE FOUR CO-TRUSTEES FOR NATURAL RESOURCES: THE SECRETARIES OF THE INTERIOR, AGRICULTURE, AND COMMERCE, AND THE COMMISSIONER OF FISH AND GAME FOR THE STATE ALASKA. THE AGREEMENT PROVIDES FOR AN INITIAL PAYMENT OF $15 MILLION FROM EXXON, TO BE ALLOCATED AMONG THE CO-TRUSTEES FOR WORK RELATED TO DAMAGE ASSESSMENT. WE EXPECT THAT THE DAMAGE ASSESSMENT WILL TAKE SEVERAL YEARS.

DURING HIS VISIT, DR. EVANS WAS BRIEFED BY NOAA SCIENTIFIC PERSONNEL WHO HAVE BEEN ON-SCENE IN VALDEZ SINCE THE FIRST DAY OF THE INCIDENT. HE VISITED SEA OTTER AND BIRD RESCUE CENTERS. LATER HE WAS JOINED BY THE COMMANDANT OF THE COAST GUARD IN A NOAA HELICOPTER TO OVERFLY AND LAND ON THE BEACHES OF PRINCE WILLIAM SOUND THAT WERE MOST HEAVILY AFFECTED BY THE SPILL. DR. EVANS MET WITH NOAA, UNIVERSITY AND STATE SCIENTISTS TO DISCUSS PLANS FOR SCIENTIFIC ACTIVITIES TO MEASURE EFFECTS OF THE SPILL IN LIVING MARINE RESOURCES AND THEIR HABITATS. HE ALSO MET WITH REPRESENTATIVES OF COMMERCIAL AND RECREATIONAL FISHING INTERESTS AFFECTED BY THIS SPILL.

AS A RESULT, MR. CHAIRMAN, WE AT NOAA HAVE A FIRST-HAND KNOWLEDGE OF THE DEVASTATION CAUSED BY THIS SPILL, AND FOR THE WIDE-RANGING AND LONG-LASTING EFFECTS THAT WILL COME FROM IT. WE KNOW WE MUST BE PARTICIPANTS AND ARE COMMITTED FOR THE LONG HAUL IN THE EFFORTS TO DEAL WITH THESE EFFECTS. THIS IS WITHOUT DOUBT THE WORST DOMESTIC OIL SPILL THAT HAS OCCURRED IN THE HISTORY OF THE UNITED STATES. NOAA ALREADY IS WORKING ON MANY OF THE CRITICAL PROBLEMS CAUSED BY THIS DISASTER.

WE WILL CONTINUE TO ASSIST THE COAST GUARD, THE STATE OF ALASKA, AND PRIVATE INTERESTS IN RESPONDING TO THE SPILL, ASSESSING THE DAMAGES, AND TO THE EXTENT POSSIBLE, RESTORING THE RESOURCES OF PRINCE WILLIAM SOUND, INJURED BY THIS CATASTROPHE.

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